```
=> d his ful

     (FILE 'HOME' ENTERED AT 15:24:40 ON 09 MAR 2006)

     FILE 'REGISTRY' ENTERED AT 15:24:44 ON 09 MAR 2006
L1             STR
L2           1 SEA SSS SAM L1
               D SCA
L3          23 SEA SSS FUL L1

     FILE 'HCAPLUS' ENTERED AT 15:32:47 ON 09 MAR 2006
L4         528 SEA ABB=ON  PLU=ON  L3
L5           2 SEA ABB=ON  PLU=ON  US200!-712423/APPS
L6           2 SEA ABB=ON  PLU=ON  L4 AND L5
               SEL RN

     FILE 'REGISTRY' ENTERED AT 15:33:25 ON 09 MAR 2006
L7           7 SEA ABB=ON  PLU=ON  (10597-60-1/BI OR 31773-95-2/BI OR
               34422-12-3/BI OR 58865-06-8/BI OR 11103-57-4/BI OR 315207-62-6/
               BI OR 32619-42-4/BI)
L8           3 SEA ABB=ON  PLU=ON  L7 AND L3
L9           4 SEA ABB=ON  PLU=ON  L7 NOT L8
               D SCA

     FILE 'HCAPLUS' ENTERED AT 15:34:01 ON 09 MAR 2006
L10        117 SEA ABB=ON  PLU=ON  L3(L)(BAC OR DMA OR PAC OR PKT OR THU)/RL
               E ANTICANCER/CT
               E E4+ALL
               E E2+ALL
L11     217206 SEA ABB=ON  PLU=ON  ANTITUMOR AGENTS+PFT,NT/CT
L12         18 SEA ABB=ON  PLU=ON  L10 AND (L11 OR ?CANCER? OR ?TUMOR? OR
               ?TUMOUR? OR ?NEOPLAS?)
L13          2 SEA ABB=ON  PLU=ON  L6 AND L12

     FILE 'MEDLINE, EMBASE, BIOSIS, USPATFULL, USPAT2' ENTERED AT 15:35:34 ON
     09 MAR 2006
L14        455 SEA ABB=ON  PLU=ON  L3
L15         78 SEA ABB=ON  PLU=ON  L14 AND (?CANCER? OR ?TUMOR? OR ?TUMOUR?
               OR ?NEOPLAS?)
L*** DEL    78 S L15 NOT L12

     FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 15:36:32 ON 09 MAR 2006
L16        405 SEA ABB=ON  PLU=ON  L3
L17         48 SEA ABB=ON  PLU=ON  L16 AND (?CANCER? OR ?TUMOR? OR ?TUMOUR?
               OR ?NEOPLAS?)


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:    8 MAR 2006  HIGHEST RN 876273-86-8
     DICTIONARY FILE UPDATES:   8 MAR 2006  HIGHEST RN 876273-86-8

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006
```

Please note that search-term pricing does apply when conducting SmartSELECT searches.

****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

FILE HCAPLUS

FILE COVERS 1907 - 9 Mar 2006 VOL 144 ISS 11
FILE LAST UPDATED: 8 Mar 2006 (20060308/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE MEDLINE
FILE LAST UPDATED: 8 MAR 2006 (20060308/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>). See also:

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE
FILE COVERS 1974 TO 3 Mar 2006 (20060303/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 9 March 2006 (20060309/ED)

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 7 Mar 2006 (20060307/PD)
FILE LAST UPDATED: 7 Mar 2006 (20060307/ED)
HIGHEST GRANTED PATENT NUMBER: US7010810
HIGHEST APPLICATION PUBLICATION NUMBER: US2006048257
CA INDEXING IS CURRENT THROUGH 7 Mar 2006 (20060307/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Mar 2006 (20060307/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 7 Mar 2006 (20060307/PD)
FILE LAST UPDATED: 7 Mar 2006 (20060307/ED)
HIGHEST GRANTED PATENT NUMBER: US2005064265
HIGHEST APPLICATION PUBLICATION NUMBER: US2006047476
CA INDEXING IS CURRENT THROUGH 7 Mar 2006 (20060307/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 7 Mar 2006 (20060307/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 15:37:22 ON 09 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

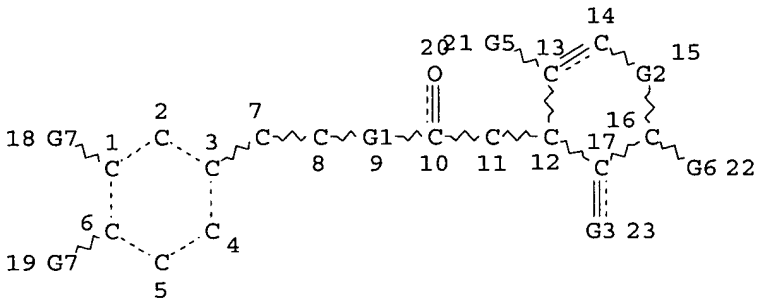
of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 9 Mar 2006 VOL 144 ISS 11
FILE LAST UPDATED: 8 Mar 2006 (20060308/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que stat l12
L1 STR



Page 1-A

31

Page 1-B
VAR G1=CH2/O/S/27-8 28-10/27-10 28-8
VAR G2=CH2/O/S/27-14 28-16/28-14 27-16
VAR G3=CH2/29
VAR G4=31/32/OH/33/X/NO2/24
VAR G5=H/31/32/OH/33/X/NO2/24/36
VAR G6=O/S/CH2/27/28
VAR G7=OH/24/25
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 24
CONNECT IS E1 RC AT 25
CONNECT IS E1 RC AT 31
CONNECT IS E1 RC AT 32
CONNECT IS E1 RC AT 34
CONNECT IS E1 RC AT 38
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 32
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE
L3 23 SEA FILE=REGISTRY SSS FUL L1

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L10          117 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3(L)(BAC OR DMA OR PAC OR
                 PKT OR THU)/RL
L11       217206 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTITUMOR AGENTS+PFT,NT/CT
L12           18 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND (L11 OR ?CANCER? OR
                 ?TUMOR? OR ?TUMOUR? OR ?NEOPLAS?)


=> fil medline embase biosis
FILE 'MEDLINE' ENTERED AT 15:37:46 ON 09 MAR 2006

FILE 'EMBASE' ENTERED AT 15:37:46 ON 09 MAR 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 15:37:46 ON 09 MAR 2006
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=> d que stat l17
L1                STR
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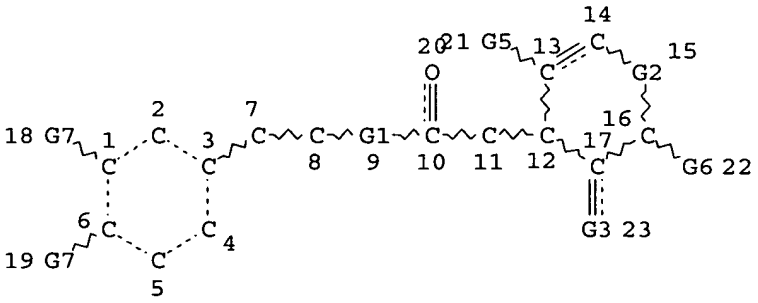
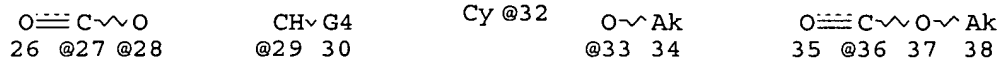


N @24 S @25 Ak @



Page 1-A

31

```
Page 1-B
VAR G1=CH2/O/S/27-8 28-10/27-10 28-8
VAR G2=CH2/O/S/27-14 28-16/28-14 27-16
VAR G3=CH2/29
VAR G4=31/32/OH/33/X/NO2/24
VAR G5=H/31/32/OH/33/X/NO2/24/36
VAR G6=O/S/CH2/27/28
VAR G7=OH/24/25
NODE ATTRIBUTES:
CONNECT IS E1  RC AT  24
CONNECT IS E1  RC AT  25
CONNECT IS E1  RC AT  31
CONNECT IS E1  RC AT  32
CONNECT IS E1  RC AT  34
CONNECT IS E1  RC AT  38
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT  32
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 38

STEREO ATTRIBUTES: NONE
L3 23 SEA FILE=REGISTRY SSS FUL L1
L16 405 SEA L3
L17 48 SEA L16 AND (?CANCER? OR ?TUMOR? OR ?TUMOUR? OR ?NEOPLAS?)

=> dup rem l12 l17
FILE 'HCAPLUS' ENTERED AT 15:37:55 ON 09 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 15:37:55 ON 09 MAR 2006

FILE 'EMBASE' ENTERED AT 15:37:55 ON 09 MAR 2006
Copyright (c) 2006 Elsevier B.V. All rights reserved.

FILE 'BIOSIS' ENTERED AT 15:37:55 ON 09 MAR 2006
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PROCESSING COMPLETED FOR L12
PROCESSING COMPLETED FOR L17
L18 47 DUP REM L12 L17 (19 DUPLICATES REMOVED)
ANSWERS '1-18' FROM FILE HCAPLUS
ANSWERS '19-22' FROM FILE MEDLINE
ANSWERS '23-39' FROM FILE EMBASE
ANSWERS '40-47' FROM FILE BIOSIS

=> d l18 ibib abs hitstr 1-18, d ibib abs hitind 19-47
'D' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):end

=> d l18 ibib abs hitstr 1-18;d l18 ibib abs hitind 19-47

L18 ANSWER 1 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2005:690071 HCAPLUS
DOCUMENT NUMBER: 143:166226
TITLE: Oleuropein, a non-toxic olive iridoid, is an anti-**tumor** agent and cytoskeleton disruptor
AUTHOR(S): Hamdi, Hamdi K.; Castellon, Raquel
CORPORATE SOURCE: H2RC Corporation, Orange, CA, 92867, USA
SOURCE: Biochemical and Biophysical Research Communications (2005), 334(3), 769-778
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Oleuropein, a non-toxic secoiridoid derived from the olive tree, is a powerful antioxidant and anti-angiogenic agent. Here, we show it to be a potent anti-**cancer** compound, directly disrupting actin filaments in cells and in a cell-free assay. Oleuropein inhibited the proliferation and migration of advanced-grade **tumor** cell lines in a dose-responsive manner. In a novel tube-disruption assay, Oleuropein

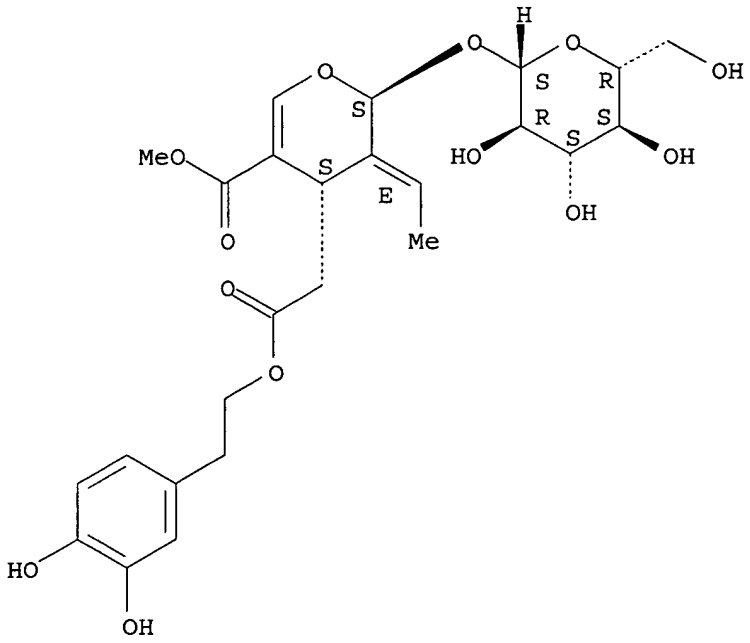
irreversibly rounded **cancer** cells, preventing their replication, motility, and invasiveness; these effects were reversible in normal cells. When administered orally to mice that developed spontaneous **tumors**, Oleuropein completely regressed **tumors** in 9-12 days. When **tumors** were resected prior to complete regression, they lacked cohesiveness and had a crumbly consistency. No viable cells could be recovered from these **tumors**. These observations elevate Oleuropein from a non-toxic antioxidant into a potent anti-**tumor** agent with direct effects against **tumor** cells. Our data may also explain the **cancer**-protective effects of the olive-rich Mediterranean diet.

IT **32619-42-4**, Oleuropein
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(Oleuropein, a non-toxic olive iridoid, is an anti-**tumor** agent and cytoskeleton disruptor)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 2001:818973 HCAPLUS
DOCUMENT NUMBER: 137:15715
TITLE: The inhibitory effects of compounds from olive leaf on **tumor** necrosis factor production and on

β-hexosaminidase release

AUTHOR(S): Nishibe, Sansei; Han, Yingmei; Noguchi, Yukari; Ueda, Hiroshi; Yamazaki, Masatoshi; Mizutani, Kenji; Kambara, Toshimitsu; Kishida, Naoko

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Health Sciences University of Hokkaido, Ishikari-Tobetsu, Hokkaido, 061-0293, Japan

SOURCE: Natural Medicines (Tokyo, Japan) (2001), 55(4), 205-208
CODEN: NMEDEO; ISSN: 1340-3443

PUBLISHER: Japanese Society of Pharmacognosy

DOCUMENT TYPE: Journal

LANGUAGE: English

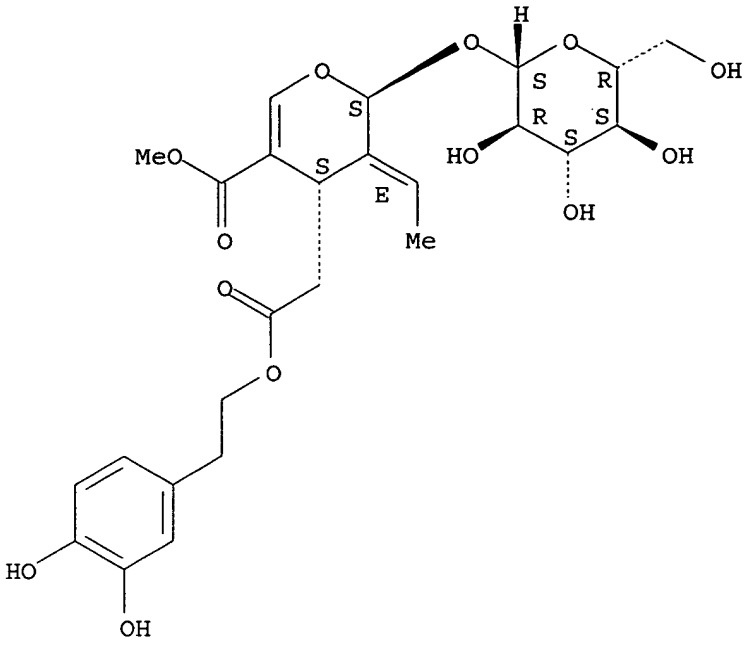
AB The extraction and isolation of olive leaf gave luteolin 7-O-glucoside, luteolin 4'-O-glucoside and oleuropein as the major components. The inhibitory effects of these compds. on **tumor** necrosis factor (TNF-α) production and on β-hexosaminidase release from rat basophilic leukemia (RBL-2H3) cells, which were both recently found to be linked to allergic reaction, were examined Oleuropein showed a potent inhibitory effect on TNF-α production Luteolin 4'-O-glucoside showed a strong inhibitory effect on β-hexosaminidase release (IC50:17.1 μg/mL).

IT **32619-42-4P**, Oleuropein
RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(inhibitory effects of compds. from olive leaf on **tumor** necrosis factor production and on β-hexosaminidase release)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

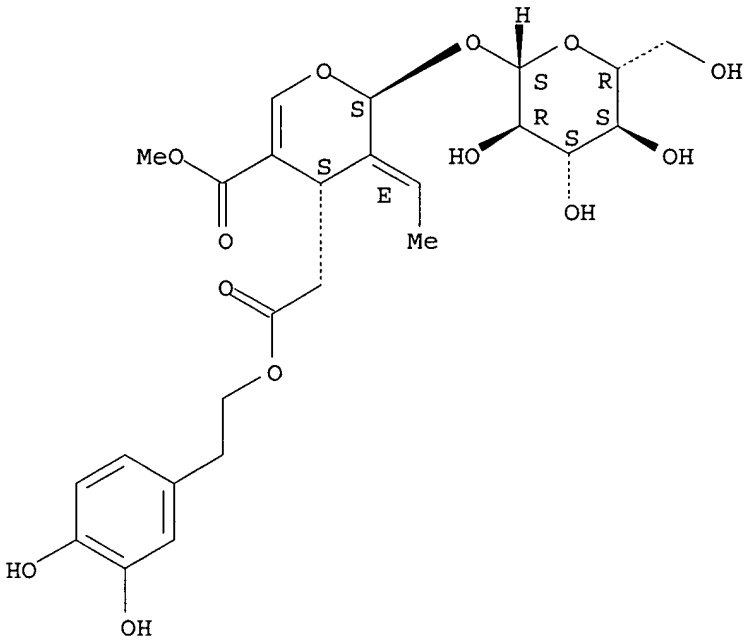
L18 ANSWER 3 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10
ACCESSION NUMBER: 1999:467227 HCAPLUS
DOCUMENT NUMBER: 131:226102
TITLE: Studies on constituents with cytotoxic activity from the stem bark of Syringa velutina
AUTHOR(S): Park, Hee-Juhn; Lee, Myung-Sun; Lee, Kyung-Tae; Sohn, Il-Cheol; Han, Yong-Nam; Miyamoto, Ken-Ichi
CORPORATE SOURCE: Department of Botanical Resources, Sangi University, Wonju, 220-702, S. Korea
SOURCE: Chemical & Pharmaceutical Bulletin (1999), 47(7), 1029-1031
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cytotoxic compds., oleuropein and a phenylethanoid glycoside (I) were isolated from the stem bark of Syringa velutina KOM. along with coniferylaldehyde 4-O-glucoside, syringin, ligstroside, (+)-syringaresinol 4-O-glucoside, (+)-medioresinol 4''-O-glucoside and (-)-olivil 4''-O-glucoside. I was identified to be 3,4-dihydroxyphenylethyl alc. 8-O-β-D-glucopyranoside. Alc. 8-O-β-D-glucopyranoside. This compound showed the most potent cytotoxic effect on several **tumor** cell lines (P-388, L-1210, SNU-5 and HL-60) among eight compds. isolated in the present study. We suggest that the 3,4-dihydroxyphenylethoxy moiety of this compound contributes to cytotoxicity.

IT **32619-42-4**, Oleuropein
RL: **BAC (Biological activity or effector, except adverse)**; BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(cytotoxic activities of constituents from stem bark of Syringa velutina)

RN 32619-42-4 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 11
ACCESSION NUMBER: 1998:20210 HCAPLUS
DOCUMENT NUMBER: 128:162831
TITLE: Oleuropein, the bitter principle of olives, enhances nitric oxide production by mouse macrophages
AUTHOR(S): Visioli, Francesco; Bellosta, Stefano; Galli, Claudio
CORPORATE SOURCE: Institute of Pharmacological Sciences, Milan, 20133, Italy
SOURCE: Life Sciences (1998), 62(6), 541-546
CODEN: LIFSAK; ISSN: 0024-3205
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Mediterranean diet, rich in fresh fruits and vegetables, has been associated with a lower incidence of cardiovascular disease and **cancer**, partly because of its high proportion of bioactive compds. such as vitamins, flavonoids and polyphenols. The major lipid component of such diet is the drupe-derived olive oil, that can be distinguished from other seed oils for the peculiar composition of its non-triglyceride fraction. In fact, several minor components, including polyphenols, grant the oil its particular taste and aroma. Oleuropein, the most abundant

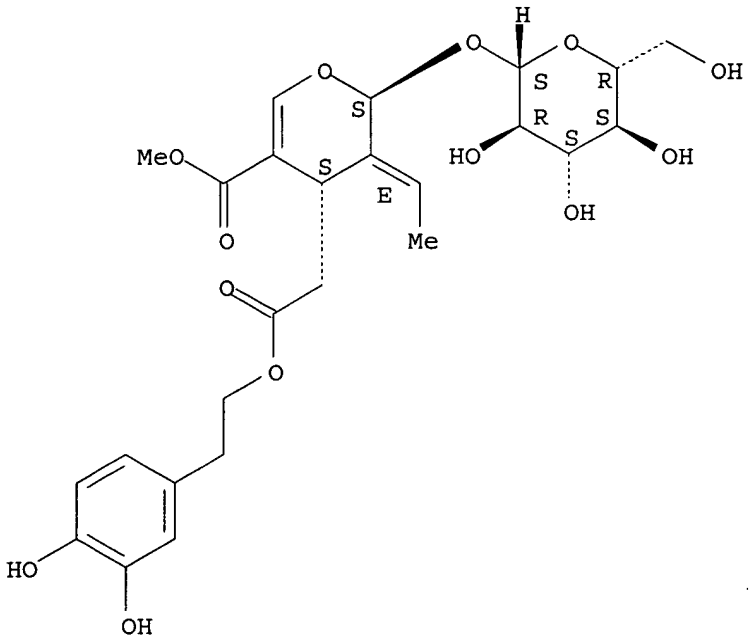
among these components, has been shown to be a potent antioxidant endowed with antiinflammatory properties. We investigated the effects of oleuropein on NO release in cell culture and its activity toward nitric oxide synthase (iNOS) expression. The results show that oleuropein dose-dependently enhance nitrite production in LPS-challenged mouse macrophages. This effect was blocked by the iNOS inhibitor L-NAME, indicating increased iNOS activity. Also, Western blot anal. of cell homogenates show that oleuropein increases iNOS expression in such cells. Taken together, our data suggest that, during endotoxin challenge, oleuropein potentiates the macrophage-mediated response, resulting in higher NO production, currently believed to be beneficial for cellular and organismal protection.

IT **32619-42-4**, Oleuropein
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(oleuropein from olive oil enhances nitric oxide production by macrophages)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 12
ACCESSION NUMBER: 1998:380086 HCAPLUS
DOCUMENT NUMBER: 129:81138
TITLE: Free radical-scavenging properties of olive oil

polyphenols

AUTHOR(S): Visioli, Francesco; Bellomo, Giorgio; Galli, Claudio
CORPORATE SOURCE: Institute of Pharmacological Sciences, University of Milan, Italy

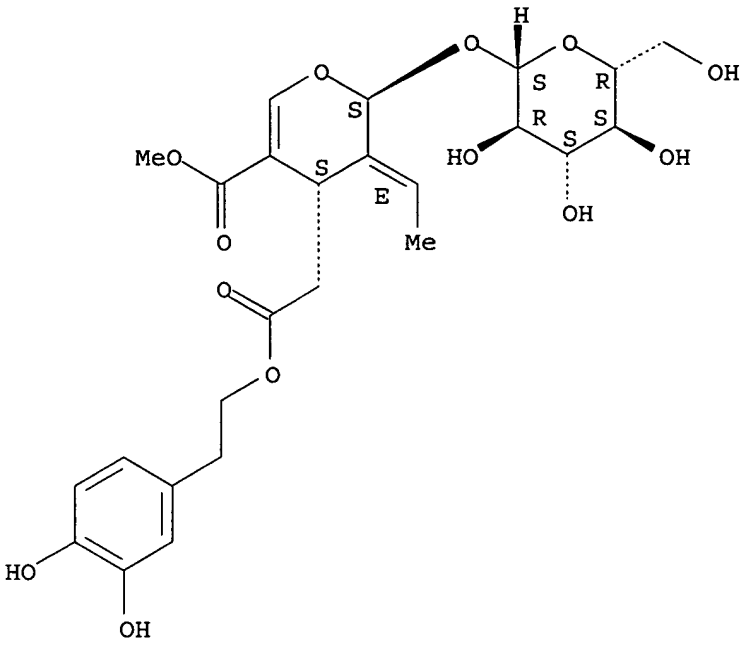
SOURCE: Biochemical and Biophysical Research Communications (1998), 247(1), 60-64
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Plants in the Mediterranean basin, such as vine and olive trees, have developed an array of antioxidant defences to protect themselves from environmental stress. Accordingly, the incidence of coronary heart disease and certain **cancers** is lower in the Mediterranean area, where olive oil is the dietary fat of choice. As opposed to other vegetable oils, extra virgin olive oil, which is obtained by phys. pressure from a whole fruit, is rich in phenolic components that are responsible for the particular stability of the oil. We have investigated the scavenging actions of some olive oil phenolics, namely hydroxytyrosol and oleuropein, with respect to superoxide anion generation, neutrophils respiratory burst, and hypochlorous acid. The low EC50s indicate that both compds. are potent scavengers of superoxide radicals and inhibitors of neutrophils respiratory burst: whenever demonstrated in vivo, these properties may partially explain the observed lower incidence of CHD and **cancer** associated with the Mediterranean diet.

IT **32619-42-4**, Oleuropein
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(free radical-scavenging properties of olive oil polyphenols)

RN 32619-42-4 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:612049 HCAPLUS
DOCUMENT NUMBER: 143:138683
TITLE: Oral hygiene solution that can be added to drinking water
INVENTOR(S): Romanowski, Radek; Emily, Peter; Alkemade, Stan
PATENT ASSIGNEE(S): Imrex, Inc., Can.
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063184	A1	20050714	WO 2004-US42905	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005158252	A1	20050721	US 2004-18851	20041221
PRIORITY APPLN. INFO.:			US 2003-532303P P	20031222

AB The present invention comprises novel compns. and methods for oral hygiene

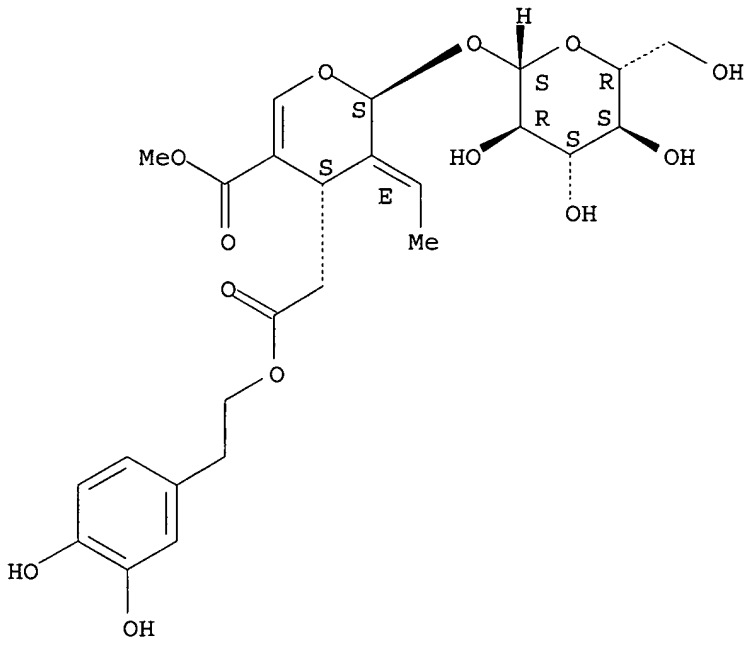
and for treating and preventing oral disease in humans and in animals. In one embodiment, the novel compns. of the present invention comprise a unique oral hygiene solution that can be added to drinking water. The invention provides compns. and methods for maintaining oral health that are convenient to use and are formulated so that they are safe for regular use by humans and animals. A formulation contained purified water, glycero, mydroxymethyl cellulose, xylitol, Polysorbate 20, K sorbate\Na benzoate, barley malt extract, chlorhexidine digluconate and D&C Blue #1.

IT **32619-42-4**, Oleuropein
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(oral hygiene solution that can be added to drinking water)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1311702 HCAPLUS
DOCUMENT NUMBER: 144:57525
TITLE: Coated vaginal devices for vaginal delivery of therapeutically effective and/or health-promoting agents
INVENTOR(S): Wilson, Michelle; Desai, Kishorkumar J.; Pauletti, Giovanni M.; Antoon, Mitchell K.; Clendening, Chris E.
PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S. Ser. No. 126,863
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005276836	A1	20051215	US 2005-180076	20050712
US 6197327	B1	20010306	US 1998-79897	19980515
US 6086909	A	20000711	US 1999-249963	19990212
US 6572874	B1	20030603	US 2000-626025	20000727
NZ 508130	A	20020301	NZ 2000-508130	20001113
AU 765269	B2	20030911	AU 2001-54192	20010703
US 2003049302	A1	20030313	US 2002-226667	20020821
US 6982091	B2	20060103		
US 2004005345	A1	20040108	US 2003-349029	20030122
US 6905701	B2	20050614		
US 2004043071	A1	20040304	US 2003-600849	20030620
US 2005249774	A1	20051110	US 2005-126863	20050510
US 2006002966	A1	20060105	US 2005-208209	20050818

PRIORITY APPLN. INFO.:

US 1997-49325P	P	19970611
US 1998-79897	A2	19980515
US 1999-249963	A2	19990212
US 2000-626025	A2	20000727
US 2002-226667	A2	20020821
US 2003-349029	A2	20030122
US 2003-600849	A2	20030620
US 2004-587454P	P	20040712
US 2005-126863	A2	20050510
AU 1998-76976	A3	19980610
NZ 1998-502120	A1	19980610
US 1999-146218P	P	19990728
US 2001-315877P	P	20010829
US 2002-390748P	P	20020621

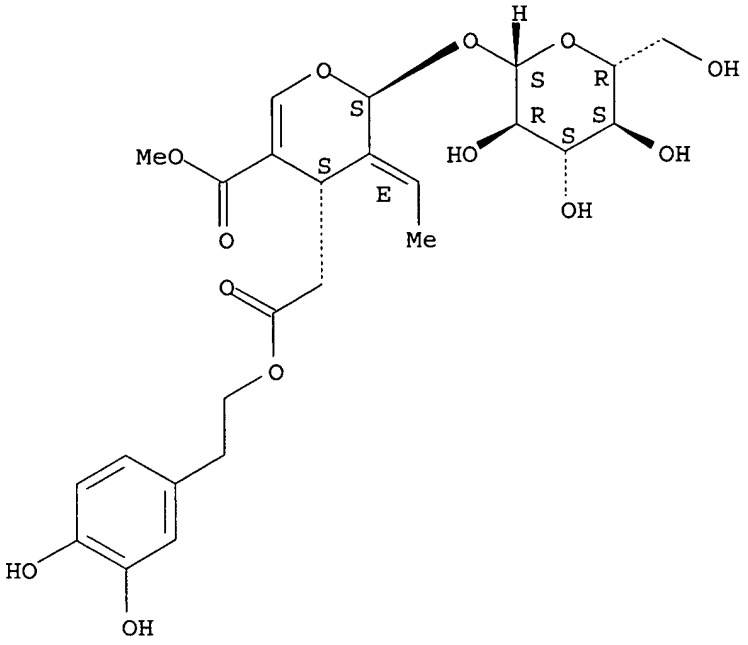
AB Disclosed is a vaginal device for delivering therapeutical and/or health-promoting agents. The vaginal device partly or completely coated by, covered by or combined with a coating or covering comprising a film, foam, strip, cap, cup or particles. The coating of the device comprises a mucoadhesive composition comprising a therapeutical and/or health-promoting agent. For example, sumatriptan vaginal suppository were prepared from Suppocire AS2X, hydroxypropyl Me cellulose as a mucoadhesive agent, and Transcutol as a permeation enhancer.

IT **32619-42-4**, Oleuropein **90357-06-5**, Bicalutamide
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(coated vaginal devices for vaginal delivery of therapeutically effective and/or health-promoting agents)

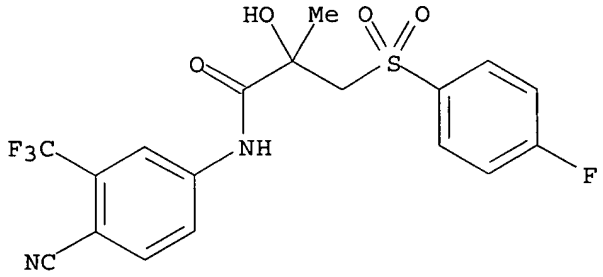
RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 90357-06-5 HCAPLUS
CN Propanamide, N-[4-cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)sulfonyl]-2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



L18 ANSWER 8 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1022541 HCAPLUS
DOCUMENT NUMBER: 143:278701
TITLE: Potential anti-**cancer** effects of virgin olive oil phenols on colorectal carcinogenesis models in vitro
AUTHOR(S): Gill, Chris I. R.; Boyd, Adele; McDermott, Emily; McCann, Mark; Servili, Maurizio; Selvaggini, Roberto; Taticchi, Agnese; Esposto, Sonia; Montedoro, GianFrancesco; McGlynn, Hugh; Rowland, Ian
CORPORATE SOURCE: Northern Ireland Centre for Food and Health, University of Ulster (Coleraine), Coleraine, Co. Londonderry, UK
SOURCE: International Journal of Cancer (2005), 117(1), 1-7
CODEN: IJCNAW; ISSN: 0020-7136
PUBLISHER: Wiley-Liss, Inc.

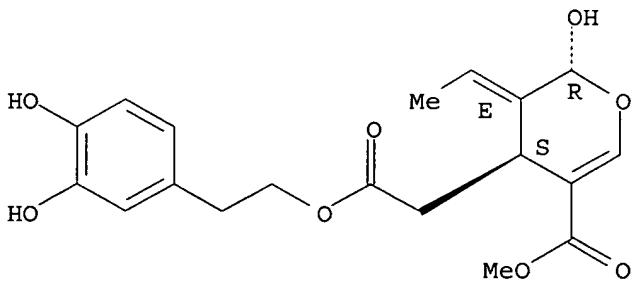
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The traditional Mediterranean diet is thought to represent a healthy lifestyle; especially given the incidence of several **cancers** including colorectal **cancer** is lower in Mediterranean countries compared to Northern Europe. Olive oil, a central component of the Mediterranean diet, is believed to beneficially affect numerous biol. processes. We used phenols extracted from virgin olive oil on a series of in vitro systems that model important stages of colon carcinogenesis. The effect the extract on DNA damage induced by hydrogen peroxide was measured in HT29 cells using single cell microgel-electrophoresis. A significant anti-genotoxic linear trend ($p = 0.011$) was observed when HT29 cells were preincubated with olive oil phenols (0, 5, 10, 25, 50, 75, 100 μg/mL) for 24 h, then challenged with hydrogen peroxide. The olive oil phenols (50, 100 μg/mL) significantly ($p = 0.004$, $p = 0.002$) improved barrier function of CACO2 cells after 48 h as measured by transepithelial resistance. Significant inhibition of HT115 invasion ($p < 0.01$) was observed at olive oil phenols concns. of 25, 50, 75, 100 μg/mL using the matrigel invasion assay. No effect was observed on HT115 viability over the concentration range 0, 25, 50 75, 100 μg/mL after 24 h, although 75 and 100 μg/mL olive oil phenols significantly inhibited HT115 cell attachment ($p = 0.011$, $p = 0.006$). Olive oil phenols had no significant effect on metastasis-related gene expression in HT115 cells. We have demonstrated that phenols extracted from virgin olive oil are capable of inhibiting several stages in colon carcinogenesis in vitro.

IT **31773-95-2**, Oleuropein aglycon
RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(anti-**cancer** effects of virgin olive oil phenols on colorectal carcinogenesis models)

RN 31773-95-2 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:414605 HCAPLUS
DOCUMENT NUMBER: 140:400046
TITLE: Methods for inhibiting **cancer** and scar

formation
INVENTOR(S): Hamdi, Hamdi K.; Castellon, Raquel
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. 657,414.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004097428	A1	20040520	US 2003-712423	20031113
US 2003004117	A1	20030102	US 2002-153003	20020522
US 6632798	B2	20031014		
US 2004048808	A1	20040311	US 2003-657414	20030908
CA 2508786	AA	20040624	CA 2003-2508786	20031204
WO 2004053067	A2	20040624	WO 2003-US38564	20031204
WO 2004053067	A3	20040819		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1569516	A2	20050907	EP 2003-812800	20031204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.:

US 2002-153003	A1	20020522
US 2002-431780P	P	20021209
US 2003-657414	A2	20030908
US 2001-292947P	P	20010523
US 2003-712423	A	20031113
WO 2003-US38564	W	20031204

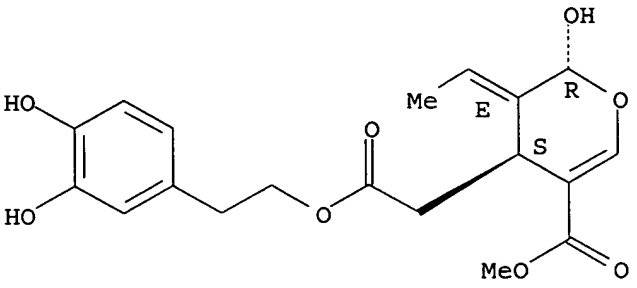
OTHER SOURCE(S): MARPAT 140:400046

AB Methods are disclosed for inhibiting **cancer**, scar formation, disrupting the cellular cytoskeleton, and conferring resistance from infection are disclosed. Such methods comprise the administration of oleuropein and/or the products of its hydrolysis in therapeutically effective amts. To that end, a variety of pharmaceutical formulations and routes or administration are disclosed and may be utilized to treat a wide variety of diseases.

IT **31773-95-2**, Oleuropein aglycone
RL: ADV (Adverse effect, including toxicity); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(methods for inhibiting **cancer** and scar formation)

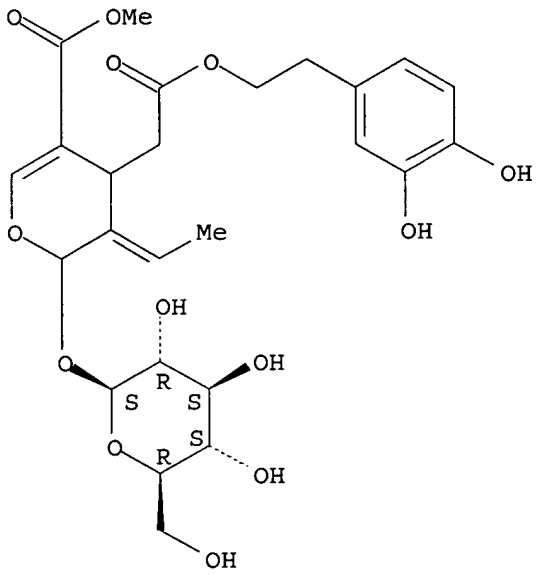
RN 31773-95-2 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **315207-62-6**
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(methods for inhibiting **cancer** and scar formation)
RN 315207-62-6 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



L18 ANSWER 10 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:203543 HCAPLUS
DOCUMENT NUMBER: 140:229477
TITLE: Methods using oleuropein and related compounds for inhibiting angiogenesis, and therapeutic use
INVENTOR(S): Hamdi, Hamdi K.; Tavis, Jeffrey H.; Castellon, Raquel
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 153,003.
CODEN: USXXCO
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048808	A1	20040311	US 2003-657414	20030908
US 2003004117	A1	20030102	US 2002-153003	20020522
US 6632798	B2	20031014		
US 2004097428	A1	20040520	US 2003-712423	20031113
PRIORITY APPLN. INFO.:			US 2001-292947P	P 20010523
			US 2002-153003	A2 20020522
			US 2002-431780P	P 20021209
			US 2003-657414	A2 20030908

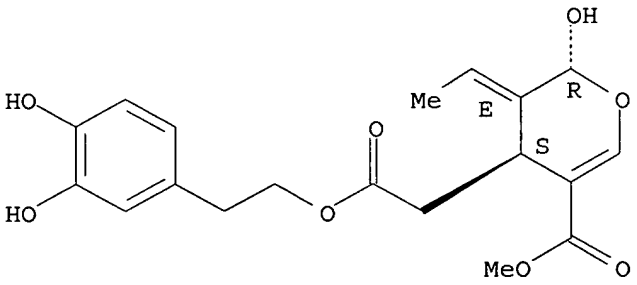
OTHER SOURCE(S): MARPAT 140:229477

AB Methods for inhibiting angiogensis are disclosed which comprise administering oleuropein and/or the products of its hydrolysis in therapeutically effective amts. The methods and compns. of the invention are particularly effective in inhibiting the vascularization of endothelial cells, and may be utilized to treat a wide variety of **cancers**, ocular diseases, and inflammatory conditions.

IT **31773-95-2**, Oleuropein aglycone **32619-42-4**, Oleuropein
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(oleuropein and related compds. for inhibiting angiogenesis, and therapeutic use)

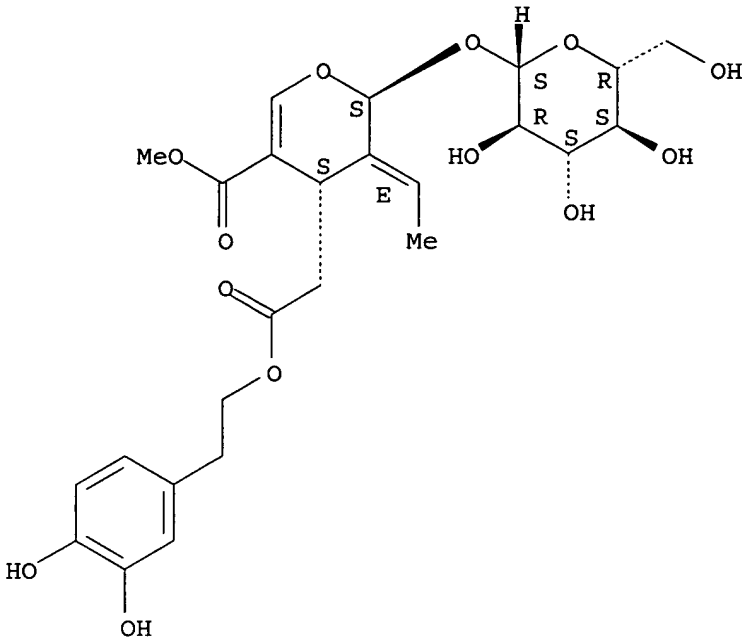
RN 31773-95-2 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 32619-42-4 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



L18 ANSWER 11 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:841825 HCAPLUS
DOCUMENT NUMBER: 141:307571
TITLE: Nutritional or therapeutic composition containing an oleuropein compound or the one of its derivatives
INVENTOR(S): Coxam, Veronique; Skaltsounis, Leandros; Puel, Caroline; Mazur, Andre
PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique INRA, Fr.
SOURCE: Fr. Demande, 36 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2853549	A1	20041015	FR 2003-4584	20030411
CA 2521967	AA	20041028	CA 2004-2521967	20040409
WO 2004091591	A2	20041028	WO 2004-FR50156	20040409
WO 2004091591	A3	20041125		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1617836 A2 20060125 EP 2004-742843 20040409
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
PRIORITY APPLN. INFO.: FR 2003-4584 A 20030411
WO 2004-FR50156 W 20040409

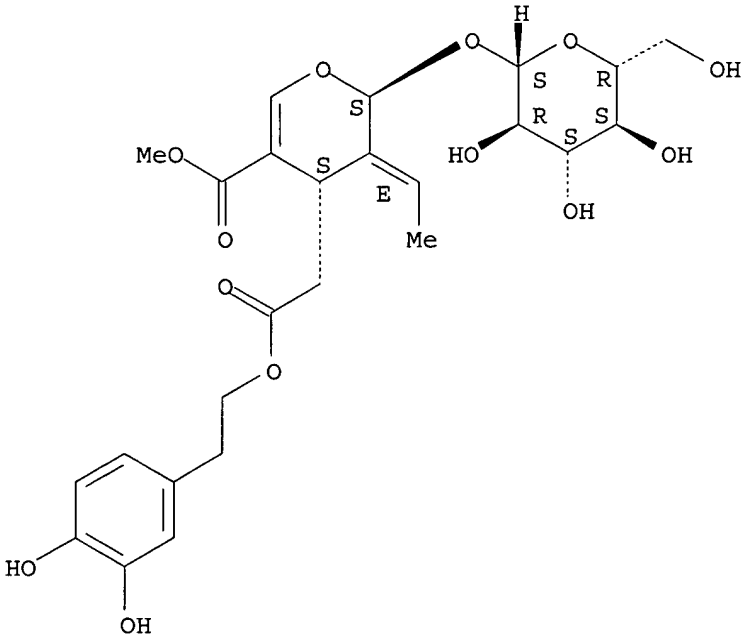
AB A nutritional or a pharmaceutical composition for human or veterinary use comprises oleuropeine or one of its derivs. Osteoprotective efficacy of the composition was shown in ovariectomized rats.

IT **32619-42-4P**, Oleuropein
RL: **PAC (Pharmacological activity)**; SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(nutritional or therapeutic composition containing oleuropein compound or one of its derivs.)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



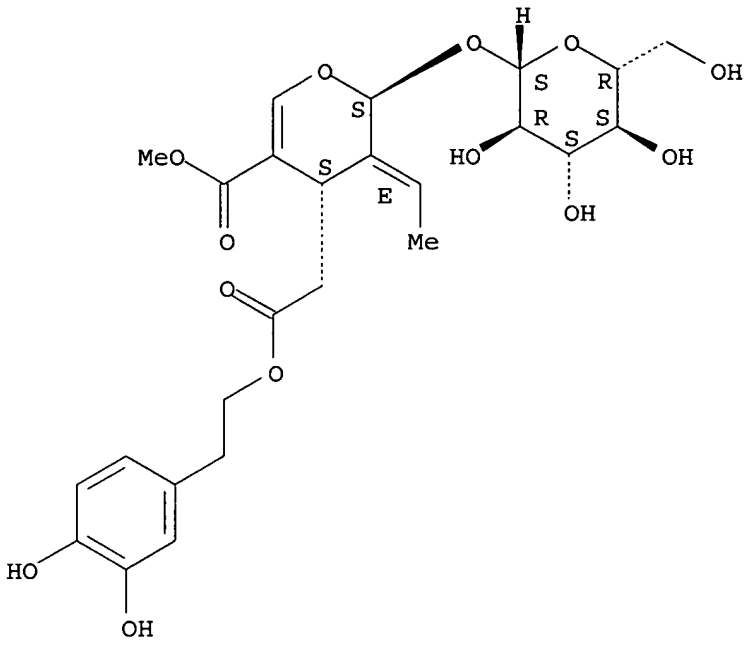
IT **32619-42-4D**, Oleuropeine, derivs.
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(nutritional or therapeutic composition containing oleuropein compound or one of its derivs.)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester,

(2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 12 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:941581 HCAPLUS
DOCUMENT NUMBER: 142:163
TITLE: An ex-vivo angiogenesis assay as a screening method for natural compounds and herbal drug preparations
AUTHOR(S): Baronikova, Slavka; Apers, Sandra; Vanden Berghe, Dirk; Cos, Paul; Vermeulen, Peter; Van Daele, Andre; Pieters, Luc; Van Marck, Eric; Vlietinck, Arnold
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Antwerp, Antwerp, Belg.
SOURCE: Planta Medica (2004), 70(10), 887-892
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Angiogenesis is a fundamental component of complex biol. processes, including oncogenesis. The aim of this work was to optimize and validate an ex-vivo angiogenesis assay as a quant. (PC image) biol. method for testing promising natural compds. and herbal drug prepns. for their pro-/anti-angiogenic activity. The bioassay is based on the principle of wound healing and quantifies the effect of angiogenic agents on neovessel outgrowth of human placental vessels embedded in a 3-dimensional fibrin matrix. The assay was validated by known, well characterized pro- and anti-angiogenic effectors (basic fibroblast growth factor and

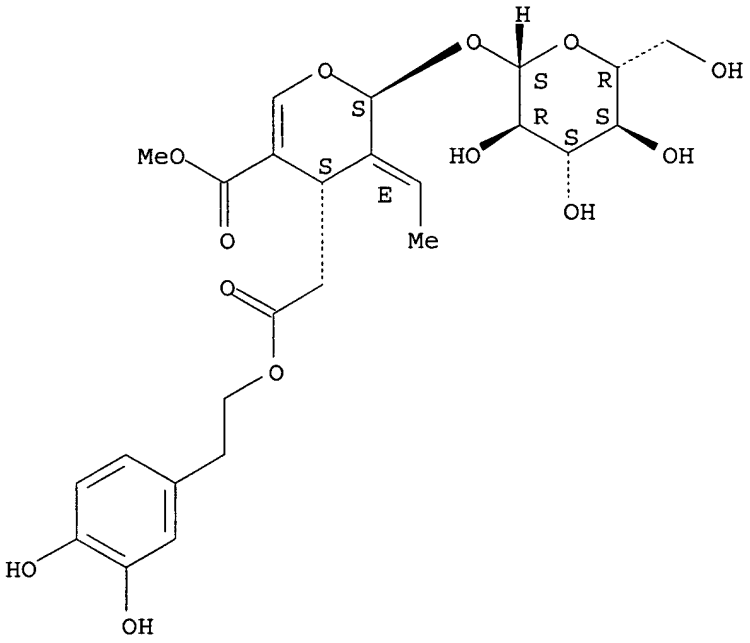
carboxyamidotriazole, resp.), and an angiogenesis inhibitor of plant origin (green tea leaves extract) was used as a reference product to demonstrate the applicability of the assay for plant exts. Other standardized plant exts. prepared from olive tree leaves and horse chestnut seeds were tested for their angiogenic potential, but showed only slight inhibitory or no activity, resp. The results presented here indicate that this human ex-vivo angiogenic assay is "ready to use" for screening of herbal drug prepns. and pure compds.

IT **32619-42-4**, Oleuropein
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(an ex-vivo angiogenesis assay as a screening method for natural compds. and herbal drug prepns.)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



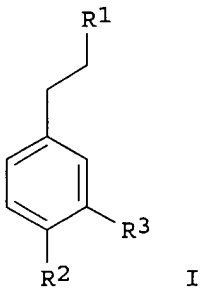
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 13 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:796464 HCAPLUS
DOCUMENT NUMBER: 139:286369
TITLE: Natural phenolic products and derivatives thereof for protection against neurodegenerative diseases
INVENTOR(S): Geerlings, Arjan; Lopez-Huertas, Leon Eduardo; Morales Sanchez, Juan-Carlos; Boza Puerta, Julio; Jimenez

Lopez, Jesus
PATENT ASSIGNEE(S): Puleva Biotech, S.A., Spain
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082259	A1	20031009	WO 2002-EP3675	20020403
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2480987	AA	20031009	CA 2002-2480987	20020403
AU 2002302489	A1	20031013	AU 2002-302489	20020403
EP 1494658	A1	20050112	EP 2002-730093	20020403
EP 1494658	B1	20060104		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005531523	T2	20051020	JP 2003-579797	20020403
AT 314841	E	20060215	AT 2002-730093	20020403
US 2003236202	A1	20031225	US 2003-406791	20030403
PRIORITY APPLN. INFO.:			EP 2002-730093 A	20020403
			WO 2002-EP3675 W	20020403

OTHER SOURCE(S): MARPAT 139:286369
GI



I

AB The invention discloses the use of phenolic compds. and derivs. I [R1, R2 = OH, OCO(C2-22 alkyl), OCO (C2-22 alkenyl); R3 = H, OH, OCO(C2-22 alkyl), OCO (C2-22 alkenyl)] for protector against neurodegenerative diseases, as well as components containing these compds. and some novel phenolic compds. Compds. of the invention include hydroxytyrosol and hydroxytyrosol derivs., e.g. 2-(3,4-dihydroxyphenyl) Et acetate (preparation given).

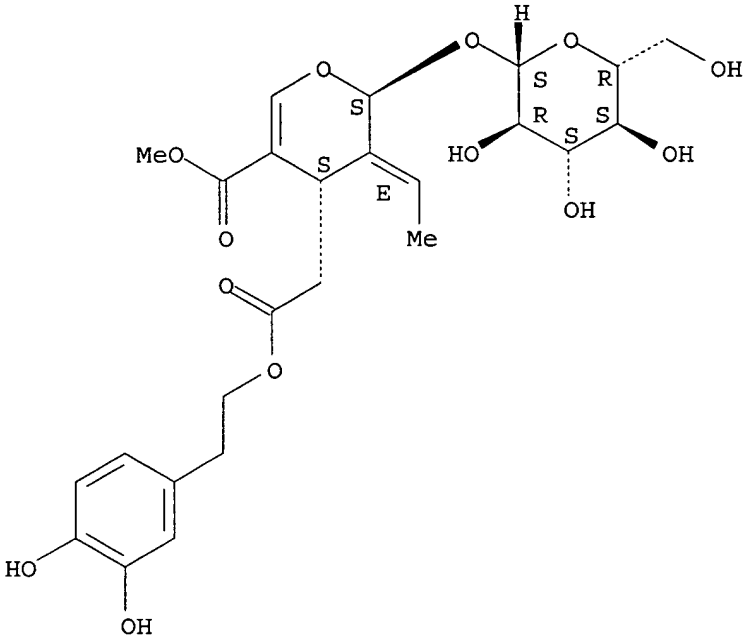
IT **32619-42-4**, Oleuropein
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(neuroprotective natural phenolic products and derivs., prepns., compns.,and use for the treatment of neurodegenerative diseases)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 14 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:905744 HCAPLUS
DOCUMENT NUMBER: 137:380057
TITLE: Methods for inhibiting angiogenesis using oleuropein and its hydrolysis products
INVENTOR(S): Hamdi, Hamdi K.; Tavis, Jeffrey H.; Castellon, Raquel
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094193	A1	20021128	WO 2002-US16191	20020522

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2447231	AA	20021128	CA 2002-2447231		20020522
EP 1397105	A1	20040317	EP 2002-739332		20020522
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
BR 2002009922	A	20040727	BR 2002-9922		20020522
CN 1531435	A	20040922	CN 2002-812125		20020522
JP 2005508856	T2	20050407	JP 2002-590914		20020522
ZA 2003008763	A	20040526	ZA 2003-8763		20031111
PRIORITY APPLN. INFO.:			US 2001-292947P	P	20010523
			WO 2002-US16191	W	20020522

OTHER SOURCE(S): MARPAT 137:380057

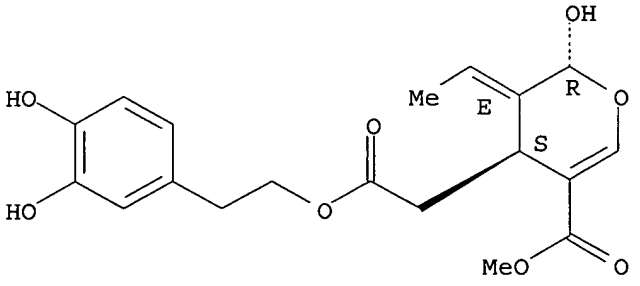
AB Methods for inhibiting angiogenesis comprise administering oleuropein and/or the products of its hydrolysis in therapeutically effective amts. The methods and compns. of the present invention are particularly effective in inhibiting the vascularization of endothelial cells, and may be utilized to treat a wide variety of **cancers**, ocular diseases, and inflammatory conditions. For example, anti-angiogenic properties of oleuropein in the adult mouse ear model were illustrated. Oleuropein potently inhibited existing blood vessels from sprouting. The burn area is in fact devoid of blood vessels.

IT **31773-95-2**, Oleuropein aglycone **32619-42-4**, Oleuropein **476196-79-9**
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(inhibition of angiogenesis by oleuropein and its hydrolysis products)

RN 31773-95-2 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

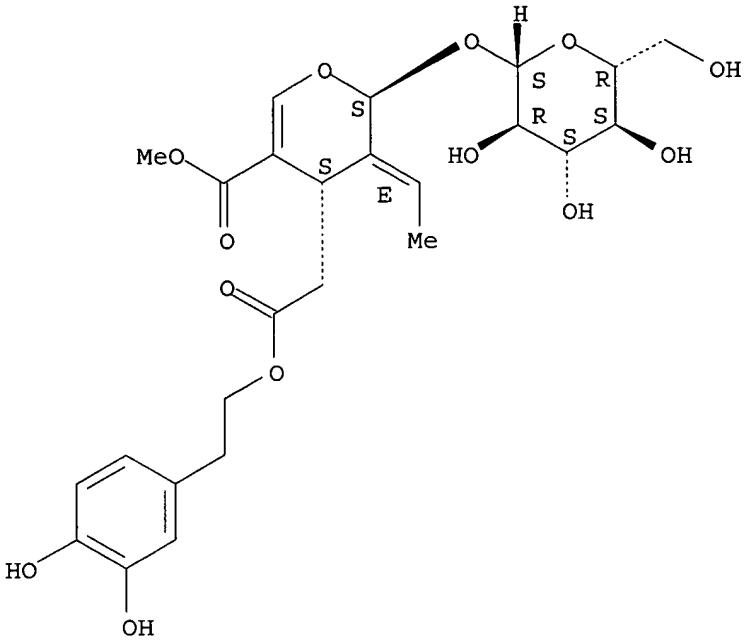
Absolute stereochemistry.
Double bond geometry as shown.



RN 32619-42-4 HCAPLUS

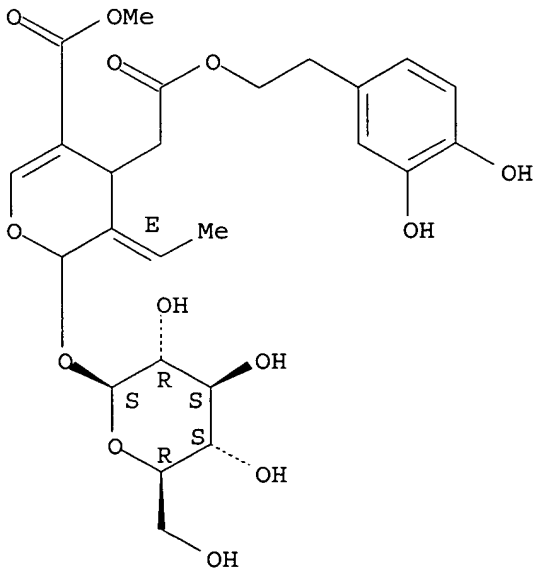
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



RN 476196-79-9 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (3E)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

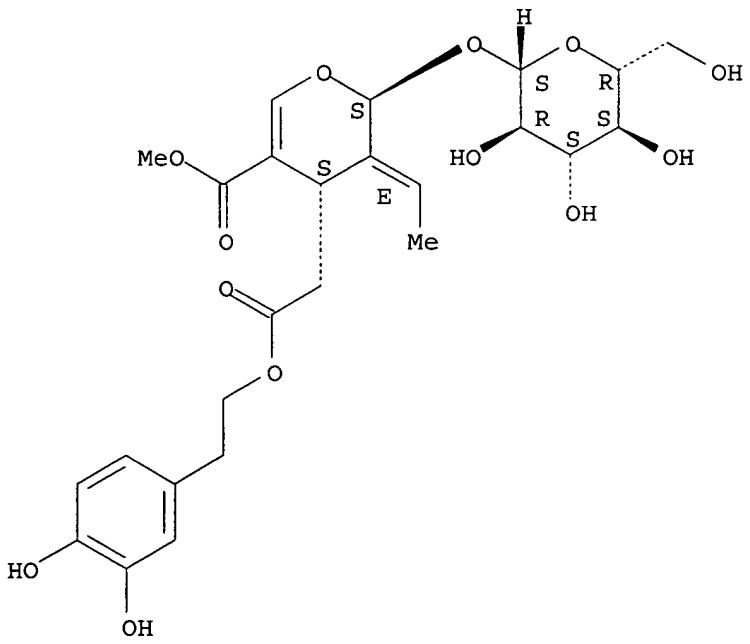
L18 ANSWER 15 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:319686 HCAPLUS
DOCUMENT NUMBER: 132:339119
TITLE: Polyphenols: simple structures with high potential
AUTHOR(S): Metz, Gunter
CORPORATE SOURCE: Blaubeuren, 89143, Germany
SOURCE: Pharmazeutische Zeitung (2000), 145(16), 1273-1275,1278
CODEN: PHZIAP; ISSN: 0031-7136
PUBLISHER: Govi-Verlag Pharmazeutischer Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: German

AB A review with 6 refs. is given on the medicinal effects of polyphenols (e.g. anticarcinogen, antioxidative) including phenolic acids, cumarins and furocumarins, propolis, ingredients in olive oil, and ACA.

IT **32619-42-4**, Oleuropein
RL: **BAC (Biological activity or effector, except adverse)**; BOC (Biological occurrence); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(medicinal effects of polyphenols)

RN 32619-42-4 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

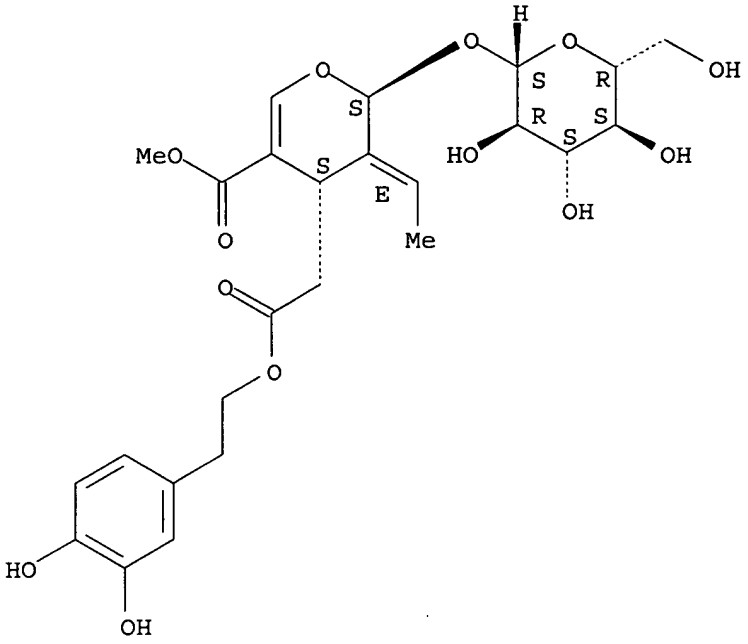
L18 ANSWER 16 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:454807 HCAPLUS
DOCUMENT NUMBER: 133:344249
TITLE: The antioxidant/**anticancer** potential of phenolic compounds isolated from olive oil
AUTHOR(S): Owen, R. W.; Giacosa, A.; Hull, W. E.; Haubner, R.; Spiegelhalder, B.; Bartsch, H.
CORPORATE SOURCE: Division of Toxicology and Cancer Risk Factors, German Cancer Research Centre, Heidelberg, D-69120, Germany
SOURCE: European Journal of Cancer (2000), 36(10), 1235-1247
CODEN: EJCAEL; ISSN: 0959-8049
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In our ongoing studies on the chemoprevention of **cancer** we have a particular interest in the health benefits of the Mediterranean diet, of which olive oil is a major component. Recent studies have shown that extravirgin olive oil contains an abundance of phenolic antioxidants including simple phenols (hydroxytyrosol, tyrosol), aldehydic secoiridoids, flavonoids and lignans (acetoxypinoresinol, pinoresinol). All of these phenolic substances are potent inhibitors of reactive oxygen species attack on, e.g., salicylic acid, 2-deoxyguanosine. Currently there is growing evidence that reactive oxygen species are involved in the etiol. of fat-related **neoplasms** such as **cancer** of the breast and colorectum. A plausible mechanism is a high intake of ω-6 polyunsatd. fatty acids which are especially prone to lipid peroxidn. initiated and propagated by reactive oxygen species, leading to the formation (via α,β-unsatd. aldehydes such as trans-4-hydroxy-2-nonenal) of highly pro-mutagenic exocyclic DNA adducts. Previous studies have shown that the colonic mucosa of **cancer** patients and those suffering from predisposing inflammatory conditions such as ulcerative colitis and Crohn's disease generates appreciably higher quantities of reactive oxygen species compared with normal tissue. We have extended these studies by developing accurate high performance liquid chromatog. (HPLC) methods for the quantitation of reactive oxygen species generated by the fecal matrix. The data shows that the fecal matrix supports the generation of reactive oxygen species in abundance. As yet, there is a dearth of evidence linking this capacity to actual components of the diet which may influence the colorectal milieu. However, using the newly developed methodol. we can demonstrate that the antioxidant phenolic compds. present in olive oil are potent inhibitors of free radical generation by the fecal matrix. This indicates that the study of the inter-relation between reactive oxygen species and dietary antioxidants is an area of great promise for elucidating mechanisms of colorectal carcinogenesis and possible future chemopreventive strategies.

IT **32619-42-4P**
RL: ANT (Analyte); **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); PUR (Purification or recovery); **THU (Therapeutic use)**; ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antioxidant/**anticancer** potential of phenolic compds. isolated from olive oil)

RN 32619-42-4 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 17 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:487644 HCAPLUS
DOCUMENT NUMBER: 133:192309
TITLE: Identification of lignans as major components in the phenolic fraction of olive oil
AUTHOR(S): Owen, Robert W.; Mier, Walter; Giacosa, Attilio; Hull, William E.; Spiegelhalder, Bertold; Bartsch, Helmut
CORPORATE SOURCE: Division of Toxicology and Cancer Risk Factors, German Cancer Research Center, Heidelberg, D-69120, Germany
SOURCE: Clinical Chemistry (Washington, D. C.) (2000), 46(7), 976-988
CODEN: CLCHAU; ISSN: 0009-9147
PUBLISHER: American Association for Clinical Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

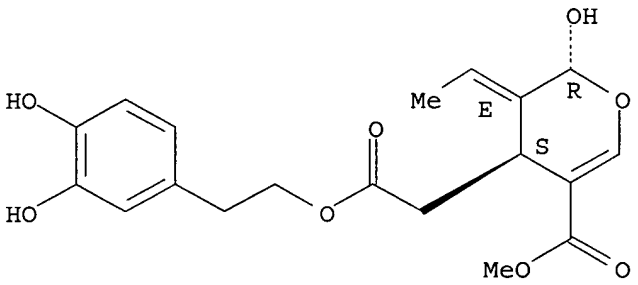
AB The major phenolic antioxidants in extra virgin olive oil were isolated and purified. Structural anal. was conducted using several spectroscopic techniques, including mass spectrometry and NMR. In particular, detailed 1H and 13C NMR data are presented, and several assignment errors in the literature are corrected The lignans (+)-1-acetoxypinoresinol and (+)-pinoresinol are major components of the phenolic fraction of olive oils. These lignans, which are potent antioxidants, are absent in seed oils and absent in refined virgin oils, but are present at concns. of up to 100 mg/kg (mean ± SE, 41.53 ± 3.93 mg/kg; range, 0.65-99.97 mg/kg) in extra virgin oils. As with the simple phenols and secoiridoids, there is considerable interoil variation in lignan concns. Foods containing

high amts. of lignan precursors have been found to be protective against breast, colon, and prostate **cancer**. Lignans, as natural components of the diet, may be important modulators of **cancer** chemopreventive activity.

IT **31773-95-2 32619-42-4**, Oleuropein
RL: FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan components in the phenolic fraction of olive oil)

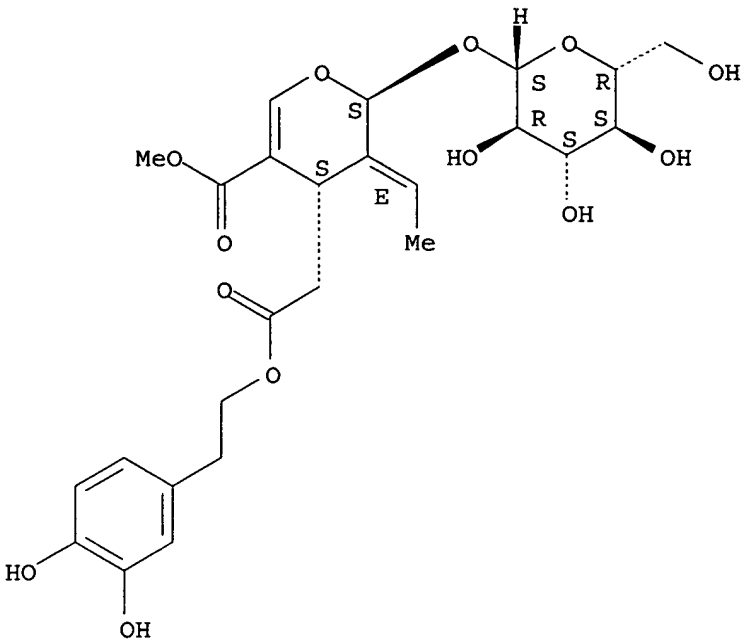
RN 31773-95-2 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-3,4-dihydro-2-hydroxy-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2R,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 32619-42-4 HCAPLUS
CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 18 OF 47 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:155024 HCAPLUS
DOCUMENT NUMBER: 134:310130
TITLE: Olive-oil consumption and health: the possible role of antioxidants
AUTHOR(S): Owen, Robert W.; Giacosa, Attilio; Hull, William E.; Haubner, Roswitha; Wurtele, Gerd; Spiegelhalder, Bertold; Bartsch, Helmut
CORPORATE SOURCE: Division of Toxicology and Cancer Risk Factors, German Cancer Research Center, Heidelberg, D-69120, Germany
SOURCE: Lancet Oncology (2000), 1(Oct.), 107-112
CODEN: LOANBN; ISSN: 1470-2045
PUBLISHER: Lancet Publishing Group
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 35 refs. In the Mediterranean basin, olive oil, along with fruits, vegetables, and fish, is an important constituent of the diet, and is considered a major factor in preserving a healthy and relatively disease-free population. Epidemiol. data show that the Mediterranean diet has significant protective effects against **cancer** and coronary heart disease. We present evidence that it is the unique profile of the phenolic fraction, along with high intakes of squalene and the monounsatd. fatty acid, oleic acid, which confer its health-promoting properties. The major phenolic compds. identified and quantified in olive oil belong to three different classes: simple phenols (hydroxytyrosol, tyrosol); secoiridoids (oleuropein, the aglycon of ligstroside, and their resp. decarboxylated dialdehyde derivs.); and the lignans [(+)-1-acetoxypinoresinol and (+)-pinoresinol]. All three classes have potent antioxidant properties. High consumption of extra-virgin olive oils, which are particularly rich in these phenolic antioxidants (as well as squalene and oleic acid), should afford considerable protection against

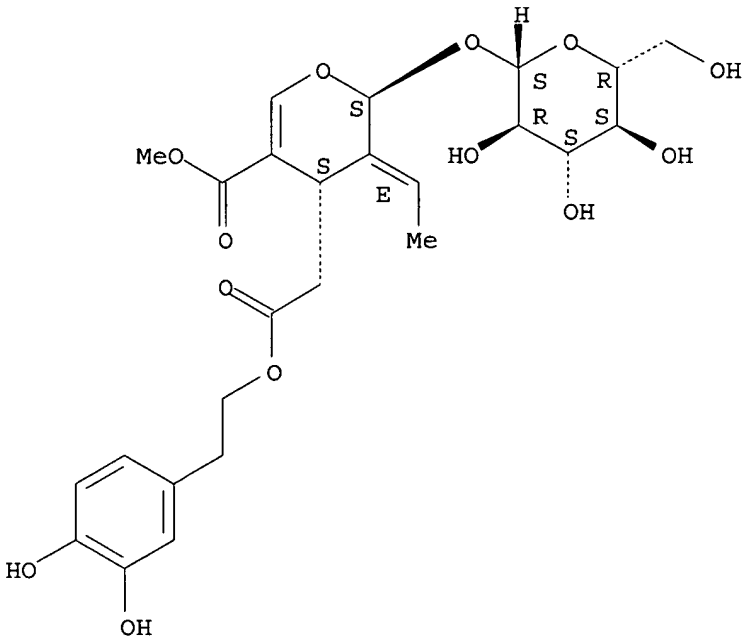
cancer (colon, breast, skin), coronary heart disease, and ageing by inhibiting oxidative stress.

IT **32619-42-4**, Oleuropein
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BIOL (Biological study)
(Olive-oil consumption and health in relation to the possible role of antioxidants)

RN 32619-42-4 HCAPLUS

CN 2H-Pyran-4-acetic acid, 3-ethylidene-2-(β-D-glucopyranosyloxy)-3,4-dihydro-5-(methoxycarbonyl)-, 2-(3,4-dihydroxyphenyl)ethyl ester, (2S,3E,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Double bond geometry as shown.



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 19 OF 47 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2003067119 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12535851
TITLE: Simultaneous determination of oleuropein and hydroxytyrosol in rat plasma using liquid chromatography with fluorescence detection.
AUTHOR: Tan Hai-Wei; Tuck Kellie L; Stupans Ieva; Hayball Peter J
CORPORATE SOURCE: Centre for Pharmaceutical Research, School of Pharmaceutical, Molecular and Biomedical Sciences, University of South Australia, Adelaide, 5000, Australia.
SOURCE: Journal of chromatography. B, Analytical technologies in

the biomedical and life sciences, (2003 Feb 25) Vol. 785, No. 1, pp. 187-91.
Journal code: 101139554. ISSN: 1570-0232.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 20030212
Last Updated on STN: 20030801
Entered Medline: 20030731

AB Oleuropein, the main glycoside present in olives, and hydroxytyrosol, the principal degradation product of oleuropein present in olive oil, have been linked to reduction of coronary heart disease and certain **cancers**. In the present study a direct and sensitive reversed-phase high-performance liquid chromatographic assay was developed for simultaneous quantification of both oleuropein and hydroxytyrosol. The plasma protein was precipitated with acetonitrile, samples were then centrifuged and supernatants were dried, and reconstituted with water prior to injection. The chromatographic analysis was carried out using a phenyl column and an isocratic elution of acidified water and acetonitrile with fluorescence detection at 281 and 316 nm for excitation and emission, respectively. The calibration curve was linear and limits of quantification were 30 ng/ml and 3 microg/ml for hydroxytyrosol and oleuropein, respectively. The method has been successfully applied to monitor oleuropein and hydroxytyrosol plasma levels in the rat.

CT Animals
Calibration
*Chromatography, High Pressure Liquid: MT, methods
*Phenylethyl Alcohol: AA, analogs & derivatives
*Phenylethyl Alcohol: BL, blood
*Pyrans: BL, blood
Rats
Sensitivity and Specificity
*Spectrometry, Fluorescence: MT, methods

RN 10597-60-1 (3,4-dihydroxyphenylethanol); **32619-42-4 (oleuropein)** ; 60-12-8 (Phenylethyl Alcohol)
CN 0 (Pyrans)

L18 ANSWER 20 OF 47 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2001098429 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11110859
TITLE: Oleuropein, an antioxidant polyphenol from olive oil, is poorly absorbed from isolated perfused rat intestine.
AUTHOR: Edgecombe S C; Stretch G L; Hayball P J
CORPORATE SOURCE: Centre for Pharmaceutical Research, University of South Australia, North Terrace, Adelaide, South Australia, 5000, Australia.
SOURCE: The Journal of nutrition, (2000 Dec) Vol. 130, No. 12, pp. 2996-3002.
Journal code: 0404243. ISSN: 0022-3166.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010201

AB Epidemiological studies have shown that the incidence of heart disease and certain **cancers** is lower in the Mediterranean region. This has been attributed to the high consumption of olive oil in the Mediterranean diet, which contains polyphenolic compounds with antioxidant activity. Although many in vitro studies have been performed to elucidate mechanisms by which these compounds may act, there are virtually no data relating to their fate after ingestion. Therefore, we decided to investigate the intestinal absorption of one of the major olive oil polyphenolics, oleuropein. To do this, a novel in situ intestinal perfusion technique was developed, and the absorption of oleuropein was studied under both iso-osmotic and hypotonic luminal conditions. Oleuropein was absorbed, with an apparent permeability coefficient (P:(app)) of 1.47 +/- 0.13 x 10(-6) cm/s (+/-SE) observed under iso-osmotic conditions. The mechanism of absorption is unclear but may involve transcellular transport (SGLT1) or paracellular movement. Under hypotonic conditions, the permeability of oleuropein was significantly greater (5.92 +/- 0.49 x 10(-6) cm/s, P: < 0.001). This increase is thought to be due to an increase in paracellular movement facilitated by the opening of paracellular junctions in response to hypotonicity. Overall, we determined that the olive oil polyphenolic oleuropein can be absorbed, albeit poorly, from isolated perfused rat intestine. Therefore, it is possible that it or its metabolites may confer a positive health benefit after the consumption of olive oil, most likely via an antioxidant mechanism.

CT Animals
*Antioxidants: TU, therapeutic use
Biological Availability
*Flavonoids
Hypotonic Solutions
*Intestinal Absorption
Membrane Glycoproteins: PH, physiology
Models, Animal
Monosaccharide Transport Proteins: PH, physiology
Permeability
Phenols: CH, chemistry
*Phenols: PK, pharmacokinetics
Plant Oils: AN, analysis
Plant Oils: ME, metabolism
*Plant Oils: PK, pharmacokinetics
Polymers: CH, chemistry
*Polymers: PK, pharmacokinetics
Pyrans: ME, metabolism
*Pyrans: PK, pharmacokinetics
Rats
Sodium-Glucose Transporter 1
Time Factors

RN **32619-42-4 (oleuropein)**; 8001-25-0 (olive oil)

CN 0 (Antioxidants); 0 (Flavonoids); 0 (Hypotonic Solutions); 0 (Membrane Glycoproteins); 0 (Monosaccharide Transport Proteins); 0 (Phenols); 0 (Plant Oils); 0 (Polymers); 0 (Pyrans); 0 (Slc5a1 protein, rat); 0 (Sodium-Glucose Transporter 1); 0 (polyphenols)

L18 ANSWER 21 OF 47 MEDLINE on STN
ACCESSION NUMBER: 2004559974 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15487893
TITLE: Acid-induced structural modifications of unsaturated Fatty acids and phenolic olive oil constituents by nitrite ions: a chemical assessment.
AUTHOR: Napolitano Alessandra; Panzella Lucia; Savarese Maria; Sacchi Raffaele; Giudicianni Italo; Paolillo Livio;

d'Ischia Marco
CORPORATE SOURCE: Department of Organic Chemistry and Biochemistry, University of Naples Federico II, Via Cinthia 4, I-80126 Naples, Italy.. alesnapo@unina.it
SOURCE: Chemical research in toxicology, (2004 Oct) Vol. 17, No. 10, pp. 1329-37.
Journal code: 8807448. ISSN: 0893-228X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200503
ENTRY DATE: Entered STN: 20041110
Last Updated on STN: 20050330
Entered Medline: 20050329

AB The structural modifications of the unsaturated fatty acid components of triglycerides in extra virgin olive oil (EVOO) following exposure to nitrite ions in acidic media were determined by two-dimensional (2D) NMR spectroscopy, aided by (15)N labeling and GC analysis, allowing investigation of the matrix without fractionation steps. In the presence of excess nitrite ions in a 1% sulfuric acid/oil biphasic system, extensive double bond isomerization of the oleic/linoleic acid components of triglycerides was observed associated with nitration/oxidation processes. Structurally modified species were identified as E/Z-nitroalkene, 1,2-nitrohydroxy, and 3-nitro-1-alkene(1,5-diene) derivatives based on (1)H, (13)C, and (15)N 2D NMR analysis in comparison with model compounds. Minor constituents of EVOO, including phenolic compounds and tocopherols, were also substantially modified by nitrite-derived nitrating species, even under milder reaction conditions relevant to those occurring in the gastric compartments. Novel nitrated derivatives of tyrosol, hydroxytyrosol, and oleuropein (6-8) were identified by LC/MS analysis of the polar fraction of EVOO and by comparison with synthetic samples. Overall, these results provide the first systematic description at the chemical level of the consequences of exposing EVOO to nitrite ions at acidic pH and offer an improved basis for further investigations in the field of toxic nitrosation/nitration reactions and dietary antinitrosating agents.

CT *Acids: CH, chemistry
Acids: ME, metabolism
Alkenes: AN, analysis
Antineoplastic Agents: CH, chemistry
*Fatty Acids, Unsaturated: CH, chemistry
Fatty Acids, Unsaturated: ME, metabolism
Hydrogen-Ion Concentration
Ions
Isomerism
Magnetic Resonance Spectroscopy
Mass Fragmentography
*Nitrites: CH, chemistry
Nitrites: ME, metabolism
Nitrites: TO, toxicity
Nitrosation: DE, drug effects
*Phenols: CH, chemistry
Phenols: ME, metabolism
*Phenylethyl Alcohol: AA, analogs & derivatives
Phenylethyl Alcohol: AN, analysis
*Plant Oils: CH, chemistry
Pyrans: AN, analysis
Research Support, Non-U.S. Gov't

RN 10597-60-1 (3,4-dihydroxyphenylethanol); **32619-42-4 (oleuropein)** ; 501-94-0 (4-hydroxyphenylethanol); 60-12-8 (Phenylethyl Alcohol); 8001-25-0 (olive oil)
CN 0 (Acids); 0 (Alkenes); 0 (**Antineoplastic** Agents); 0 (Fatty Acids, Unsaturated); 0 (Ions); 0 (Nitrites); 0 (Phenols); 0 (Plant Oils); 0 (Pyrans)

L18 ANSWER 22 OF 47 MEDLINE on STN
ACCESSION NUMBER: 1998456830 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9786644
TITLE: Cytostatic activity of some compounds from the unsaponifiable fraction obtained from virgin olive oil.
AUTHOR: Saenz M T; Garcia M D; Ahumada M C; Ruiz V
CORPORATE SOURCE: Laboratori do Farmacognosia, Universidad de Sevilla, 41012 Seville, Spain.
SOURCE: Farmaco (Societa chimica italiana : 1989), (1998 Jun 30) Vol. 53, No. 6, pp. 448-9.
Journal code: 8912641. ISSN: 0014-827X.
PUB. COUNTRY: Italy
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 19981029
Last Updated on STN: 19981029
Entered Medline: 19981022

AB Oleuropein, tyrosol, squalene and the fraction of sterols and triterpenoid dialcohols from the unsaponifiable fraction obtained from virgin olive oil have been tested for possible cytostatic activity against McCoy cells, using 6-mercaptopurine as a positive control. The samples of sterols and triterpenic dialcohols showed a strong activity.

CT **Antineoplastic Agents, Phytogenic: IP, isolation & purification**
***Antineoplastic Agents, Phytogenic: PD, pharmacology**
Cell Division: DE, drug effects
Cell Line
Humans
Phenylethyl Alcohol: AA, analogs & derivatives
Phenylethyl Alcohol: PD, pharmacology
*Plant Oils: CH, chemistry
Pyrans: PD, pharmacology
Squalene: PD, pharmacology
Sterols: PD, pharmacology
Triterpenes: PD, pharmacology

RN 111-02-4 (Squalene); **32619-42-4 (oleuropein)**; 501-94-0 (4-hydroxyphenylethanol); 60-12-8 (Phenylethyl Alcohol); 8001-25-0 (olive oil)
CN 0 (**Antineoplastic** Agents, Phytogenic); 0 (Plant Oils); 0 (Pyrans); 0 (Sterols); 0 (Triterpenes)

L18 ANSWER 23 OF 47 EMBASE DUPLICATE 2
ACCESSION NUMBER: 2005268562 EMBASE
TITLE: The phenolic compounds of olive oil: Structure, biological activity and beneficial effects on human health.
AUTHOR: Tripoli E.; Giammanco M.; Tabacchi G.; Di Majo D.; Giammanco S.; La Guardia M.
CORPORATE SOURCE: Prof. M. Giammanco, Institute of Physiology and Human Nutrition, Faculty of Pharmacy, University of Palermo, Via Augusta Elia 3, 90127, Palermo, Italy. giammanco@unipa.it

SOURCE: Nutrition Research Reviews, (2005) Vol. 18, No. 1, pp. 98-112. .
Refs: 166
ISSN: 0954-4224 CODEN: NREREX
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050707
Last Updated on STN: 20050707

AB The Mediterranean diet is rich in vegetables, cereals, fruit, fish, milk, wine and olive oil and has salutary biological functions. Epidemiological studies have shown a lower incidence of atherosclerosis, cardiovascular diseases and certain kinds of **cancer** in the Mediterranean area. Olive oil is the main source of fat, and the Mediterranean diet's healthy effects can in particular be attributed not only to the high relationship between unsaturated and saturated fatty acids in olive oil but also to the antioxidant property of its phenolic compounds. The main phenolic compounds, hydroxytyrosol and oleuropein, which give extra-virgin olive oil its bitter, pungent taste, have powerful antioxidant activity both in vivo and in vitro. The present review focuses on recent works analysing the relationship between the structure of olive oil polyphenolic compounds and their antioxidant activity. These compounds' possible beneficial effects are due to their antioxidant activity, which is related to the development of atherosclerosis and **cancer**, and to anti-inflammatory and antimicrobial activity. .COPYRGT. The Authors 2005.

CT Medical Descriptors:
*Mediterranean diet
*cardiovascular disease
*oxidative stress
atherosclerosis
antineoplastic activity
antioxidant activity
antiinflammatory activity
antimicrobial activity
antiviral activity
chemical structure
mass spectrometry
nuclear magnetic resonance spectroscopy
high performance liquid chromatography
degenerative disease
diabetes mellitus
rheumatoid arthritis
inflammatory disease
thrombocyte aggregation inhibition
lipid peroxidation
cell strain CACO 2
liver microsome
enzyme activity
Staphylococcus aureus
Salmonella enteritidis
Bacillus cereus
Klebsiella pneumoniae
Escherichia coli
Corynebacterium
Pseudomonas syringae
Moraxella catarrhalis
Haemophilus influenzae

Forsythia
sesame
olive tree
human
controlled study
human cell
review
Drug Descriptors:
*olive oil
*phenol derivative
*reactive oxygen metabolite: EC, endogenous compound
antioxidant
unsaturated fatty acid
saturated fatty acid
hydroxytyrosol
oleuropein
ligstroside
10 hydroxyligstroside
10 hydroxyoleuropein
tyrosol
elenolic acid
secoiridoid
pinoresinol
flavonol
delphinidin
rutoside
luteolin 7 glucoside
anthocyanin
acteoside
demethyloleuropein
nuzhenide
alpha tocopherol
1 acetoxypinoresinol
1 hydroxypinoresinol
transition element
copper
iron
ascorbic acid
carotene
thromboxane B2: EC, endogenous compound
leukotriene B4: EC, endogenous compound
nitric oxide: EC, endogenous compound
endotoxin
lycopene
beta carotene
caffeic acid
lignan
polyphenol
peroxynitrite: EC, endogenous compound
hydroxymethylglutaryl coenzyme A reductase: EC, endogenous compound
xanthine oxidase: EC, endogenous compound
steroid hormone: EC, endogenous compound
estradiol: EC, endogenous compound
estrone: EC, endogenous compound
testosterone: EC, endogenous compound
androstenedione: EC, endogenous compound
lipoxygenase: EC, endogenous compound
enterotoxin
unclassified drug

RN (olive oil) 8001-25-0; (hydroxytyrosol) 10597-60-1; (oleuropein) **32619-42-4**; (tyrosol) 501-94-0; (elenolic acid) 34422-12-3; (pinoresinol) 487-36-5; (flavonol) 577-85-5; (delphinidin) 528-53-0; (rutoside) 153-18-4, 22519-99-9; (luteolin 7 glucoside) 5373-11-5; (acteoside) 61276-17-3; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (copper) 15158-11-9, 7440-50-8; (iron) 14093-02-8, 53858-86-9, 7439-89-6; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (thromboxane B2) 54397-85-2; (leukotriene B4) 71160-24-2; (nitric oxide) 10102-43-9; (lycopene) 502-65-8; (beta carotene) 7235-40-7; (caffeic acid) 27323-69-9, 331-39-5; (polyphenol) 37331-26-3; (hydroxymethylglutaryl coenzyme A reductase) 37250-24-1; (xanthine oxidase) 9002-17-9; (estradiol) 50-28-2; (estrone) 53-16-7; (testosterone) 58-22-0; (androstenedione) 26264-53-9, 63-05-8; (lipoxygenase) 9027-17-2, 9029-60-1

L18 ANSWER 24 OF 47 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 3

ACCESSION NUMBER: 2004272369 EMBASE
TITLE: Involvement of oleuropein in (some) digestive metabolic pathways.
AUTHOR: Polzonetti V.; Egidi D.; Vita A.; Vincenzetti S.; Natalini P.
CORPORATE SOURCE: P. Natalini, Dipto. Sci. Morfologiche B., Univ. degli Studi di Camerino, Via Camerini 2, 62032 Camerino, Italy. paolo.natalini@unicam.it
SOURCE: Food Chemistry, (2004) Vol. 88, No. 1, pp. 11-15. .
Refs: 12
ISSN: 0308-8146 CODEN: FOCHDJ
PUBLISHER IDENT.: S 0308-8146(04)00054-8
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040715
Last Updated on STN: 20040715

AB Olive oil is the principal source of fats in the Mediterranean diet and it has been postulated that the components in olive oil can contribute to a lower incidence of coronary heart disease and **cancers** (prostate, colon, breast, and skin). The positive effects on human health can be attributed to the high level of phenolic compounds present in olive oil, the major ones being oleuropein, hydroxytyrosol and tyrosol. The aim of the present study was to evaluate the effect of oleuropein on enzymes involved in specific pathways of metabolism of proteins, carbohydrates and lipids. In particular, the effects of oleuropein on enzymes, such as trypsin, pepsin, lipase, glycerol dehydrogenase, glycerol-3-phosphate dehydrogenase, and glycerokinase, were investigated. Results demonstrate that oleuropein is able to activate pepsin and shows an inhibitory effect toward all the other enzymes tested, which suggests a new role for this polyphenol. In addition, a new method for lipase activity assay is presented. .COPYRGT. 2004 Elsevier Ltd. All rights reserved.

CT Medical Descriptors:
*digestion
*metabolism
evaluation
enzyme activation
enzyme analysis
enzyme specificity
protein function

protein metabolism
carbohydrate metabolism
lipid metabolism
inhibition kinetics
enzyme inhibition
enzyme activity
article
Drug Descriptors:
*oleuropein
enzyme
protein
carbohydrate
lipid
trypsin
pepsin A
triacylglycerol lipase
glycerol dehydrogenase
glycerol 3 phosphate dehydrogenase
glycerol kinase

RN (oleuropein) **32619-42-4**; (protein) 67254-75-5; (lipid) 66455-18-3; (trypsin) 9002-07-7; (pepsin A) 9001-75-6; (triacylglycerol lipase) 9001-62-1; (glycerol dehydrogenase) 9028-14-2; (glycerol 3 phosphate dehydrogenase) 9001-49-4; (glycerol kinase) 9030-66-4

L18 ANSWER 25 OF 47 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 4

ACCESSION NUMBER: 2003171248 EMBASE
TITLE: In vitro cytotoxicity to human cells in culture of some phenolics from olive oil.
AUTHOR: Babich H.; Visioli F.
CORPORATE SOURCE: H. Babich, Department of Biology, Stern College for Women, Yeshiva University, 245 Lexington Avenue, New York, NY 10016, United States. babich@ymail.yu.edu
SOURCE: Farmaco, (1 May 2003) Vol. 58, No. 5, pp. 403-407. .
Refs: 24
ISSN: 0014-827X CODEN: FRMCE8
COUNTRY: France
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20030509
Last Updated on STN: 20030509

AB The neutral red in vitro cytotoxicity assay was used to evaluate the comparative responses of human cells isolated from tissues of the oral cavity to olive oil phenolics. The cell lines used included normal gingival fibroblasts, immortalized, **nontumorigenic** gingival epithelial cells, and carcinoma cells from the salivary gland. No differences in the relative sensitivities to the phenolics amongst the three cell types were noted. In general, for all cell types, the sequence of increasing cytotoxicity was: oleuropein aglycone>oleuropein glycoside, caffeic acid>o-coumaric acid>cinnamic acid»tyrosol, syringic acid, protocatechuic acid, vanillic acid. Cytotoxicity was noted only at phenolic concentrations far exceeding those attainable after habitual consumption, thus indicating that consumption of phenol-rich olive oil is safe. .COPYRGT. 2003 Editions scientifiques et medicales Elsevier SAS. All rights reserved.

CT Medical Descriptors:
*cell culture
*cytotoxicity
drug effect
cell isolation
mouth cavity
cell line
gingiva
fibroblast
epithelium cell
carcinoma cell
salivary gland
cell type
drug safety
concentration response
human
human cell
article
Drug Descriptors:
*phenol derivative: CM, drug comparison
*phenol derivative: PD, pharmacology
*olive oil
oleuropein: CM, drug comparison
oleuropein: PD, pharmacology
oleuropein aglycone: CM, drug comparison
oleuropein aglycone: PD, pharmacology
oleuropein glycoside: CM, drug comparison
oleuropein glycoside: PD, pharmacology
caffeic acid: CM, drug comparison
caffeic acid: PD, pharmacology
coumaric acid: CM, drug comparison
coumaric acid: PD, pharmacology
cinnamic acid: CM, drug comparison
cinnamic acid: PD, pharmacology
tyrosol: CM, drug comparison
tyrosol: PD, pharmacology
syringic acid: CM, drug comparison
syringic acid: PD, pharmacology
protocatechuic acid: CM, drug comparison
protocatechuic acid: PD, pharmacology
vanillic acid: CM, drug comparison
vanillic acid: PD, pharmacology
unclassified drug
RN (olive oil) 8001-25-0; (oleuropein) **32619-42-4**; (caffeic acid) 27323-69-9, 331-39-5; (coumaric acid) 25429-38-3; (cinnamic acid) 4151-45-5, 538-42-1, 621-82-9; (tyrosol) 501-94-0; (syringic acid) 530-57-4; (protocatechuic acid) 99-50-3; (vanillic acid) 121-34-6
CO Fluka (United States); Sigma (United States); Extrasynthese (France)

L18 ANSWER 26 OF 47 EMBASE DUPLICATE 6
ACCESSION NUMBER: 2002419153 EMBASE
TITLE: Major phenolic compounds in olive oil: Metabolism and health effects.
AUTHOR: Tuck K.L.; Hayball P.J.
CORPORATE SOURCE: K.L. Tuck, Centre for Pharmaceutical Research, Sch. Pharma., Molec./Biomed. Sci., University of South Australia, Adelaide, SA 5000, Australia. kellie.tuck@unisa.edu.au

SOURCE: Journal of Nutritional Biochemistry, (1 Nov 2002) Vol. 13, No. 11, pp. 636-644. .
Refs: 53
ISSN: 0955-2863 CODEN: JNBIEL
PUBLISHER IDENT.: S 0955-2863(02)00229-2
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20021205
Last Updated on STN: 20021205

AB It has been postulated that the components in olive oil in the Mediterranean diet, a diet which is largely vegetarian in nature, can contribute to the lower incidence of coronary heart disease and prostate and colon **cancers**. The Mediterranean diet includes the consumption of large amounts of olive oil. Olive oil is a source of at least 30 phenolic compounds. The major phenolic compounds in olive oil are oleuropein, hydroxytyrosol and tyrosol. Recently there has been a surge in the number of publications that has investigated their biological properties. The phenolic compounds present in olive oil are strong antioxidants and radical scavengers. Olive "waste water" also possesses compounds which are strong antioxidant and radical scavengers. Typically, hydroxytyrosol is a superior antioxidant and radical scavenger to oleuropein and tyrosol. Hydroxytyrosol and oleuropein have antimicrobial activity against ATTC bacterial strains and clinical bacterial strains. Recent syntheses of labeled and unlabelled hydroxytyrosol coupled with superior analytical techniques have enabled its absorption and metabolism to be studied. It has recently been found that hydroxytyosol is renally excreted unchanged and as the following metabolites as its glucuronide conjugate, sulfate conjugate, homovanillic acid, homovanillic alcohol, 3,4-dihydroxyphenylacetic acid and 3,4-dihydroxyphenylacetaldehyde. Studies with tyrosol have shown that it is excreted unchanged and as its conjugates. This review summarizes the antioxidant abilities; the scavenging abilities and the biological fates of hydroxytyrosol, oleuropein and tyrosol which have been published in recent years.

CT Medical Descriptors:
*vegetarian diet
*metabolism
Southern Europe
ischemic heart disease: EP, epidemiology
incidence
prostate cancer: EP, epidemiology
colon cancer: EP, epidemiology
cancer incidence
dietary intake
medical literature
antimicrobial activity
bacterial strain
absorption
analytic method
conjugate
antioxidant activity
human
review
Drug Descriptors:
*phenol derivative
*olive oil

oleuropein
hydroxytyrosol
tyrosol
antioxidant
free radical
scavenger
glucuronide
sulfate
homovanillic acid
alcohol derivative
3,4 dihydroxyphenylacetic acid
aldehyde derivative
cinnamic acid
para coumaric acid
elenol

RN (olive oil) 8001-25-0; (oleuropein) **32619-42-4**; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0; (sulfate) 14808-79-8; (homovanillic acid) 306-08-1; (3,4 dihydroxyphenylacetic acid) 102-32-9; (cinnamic acid) 4151-45-5, 538-42-1, 621-82-9; (para coumaric acid) 7400-08-0; (elenol) 14087-07-1

L18 ANSWER 27 OF 47 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 7

ACCESSION NUMBER: 2002321711 EMBASE
TITLE: Olive oil phenolics: Effects on DNA-oxidation and redox enzyme mRNA in prostate cells.
AUTHOR: Lund E.
CORPORATE SOURCE: E. Lund, Institute of Food Research, Norwich Research Park, Colney, Norwich NR4 7UA, United Kingdom
SOURCE: British Journal of Nutrition, (2002) Vol. 88, No. 3, pp. 223-224. .
Refs: 18
ISSN: 0007-1145 CODEN: BJNUAV
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Note
FILE SEGMENT: 016 Cancer
029 Clinical Biochemistry
037 Drug Literature Index
030 Pharmacology
LANGUAGE: English
ENTRY DATE: Entered STN: 20020926
Last Updated on STN: 20020926

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

CT Medical Descriptors:
*oxidation
human
prostate cancer
cardiovascular disease
colorectal cancer
breast cancer
protection
DNA isolation
antioxidant activity
absorption
atherosclerosis: ET, etiology
DNA damage
cell proliferation
apoptosis
mitochondrial respiration

gene mutation
signal transduction
antiinflammatory activity
cancer risk
note
Drug Descriptors:
*olive oil: PD, pharmacology
*phenol derivative: PD, pharmacology
*messenger RNA: EC, endogenous compound
omega 3 fatty acid
glucosinolate
carotenoid
tocopherol
retinol
caffeic acid
oleuropein
tyrosol
hydroxytyrosol
antioxidant: PD, pharmacology
DNA: EC, endogenous compound
hydrogen peroxide
low density lipoprotein: EC, endogenous compound
iron
copper
2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine: PD, pharmacology
8 hydroxydeoxyguanosine: PD, pharmacology
glutathione: EC, endogenous compound

RN (olive oil) 8001-25-0; (tocopherol) 1406-66-2; (retinol) 68-26-8, 82445-97-4; (caffeic acid) 27323-69-9, 331-39-5; (oleuropein) **32619-42-4**; (tyrosol) 501-94-0; (hydroxytyrosol) 10597-60-1; (DNA) 9007-49-2; (hydrogen peroxide) 7722-84-1; (iron) 14093-02-8, 53858-86-9, 7439-89-6; (copper) 15158-11-9, 7440-50-8; (2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine) 105650-23-5; (glutathione) 70-18-8

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ACCESSION NUMBER: 2005486238 EMBASE
TITLE: Astonishing diversity of natural surfactants: 5. Biologically active glycosides of aromatic metabolites.
AUTHOR: Dembitsky V.M.
CORPORATE SOURCE: V.M. Dembitsky, Department of Organic Chemistry, Hebrew University, P.O. Box 39231, Jerusalem 91391, Israel. dvalery@cc.huji.ac.il
SOURCE: Lipids, (2005) Vol. 40, No. 9, pp. 869-900. .
Refs: 328
ISSN: 0024-4201 CODEN: LPDSAP
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20051128
Last Updated on STN: 20051128

AB This review article presents 342 aromatic glycosides, isolated from and identified in plants and microorganisms, that demonstrate different biological activities. They are of great interest, especially for the medicinal and/or pharmaceutical industries. These biologically active natural surfactants are good prospects for the future chemical preparation

of compounds useful as antioxidant, **anticancer**, antimicrobial, and antibacterial agents. These glycosidic compounds have been classified into several groups, including simple aromatic compounds, stilbenes, phenylethanoids, phenylpropanoids, naphthalene derivatives, and anthracene derivatives. Copyright .COPYRGT. 2005 by AOCS Press.

CT Medical Descriptors:
drug isolation
plant
microorganism
structure activity relation
dill
herb
coriander
Amomum
Acer
drug screening
IC 50
drug activity
drug mechanism
human
nonhuman
review
Drug Descriptors:
*surfactant: AN, drug analysis
*surfactant: DV, drug development
*surfactant: PD, pharmacology
*glycoside: AN, drug analysis
*glycoside: DV, drug development
*glycoside: PD, pharmacology
*aromatic compound: AN, drug analysis
*aromatic compound: DV, drug development
*aromatic compound: PD, pharmacology
*drug metabolite: AN, drug analysis
*drug metabolite: DV, drug development
*drug metabolite: PD, pharmacology
antioxidant: AN, drug analysis
antioxidant: DV, drug development
antioxidant: PD, pharmacology
antineoplastic agent: AN, drug analysis
antineoplastic agent: DV, drug development
antineoplastic agent: PD, pharmacology
antiinfective agent: AN, drug analysis
antiinfective agent: DV, drug development
antiinfective agent: PD, pharmacology
stilbene derivative: AN, drug analysis
stilbene derivative: DV, drug development
stilbene derivative: PD, pharmacology
naphthalene derivative: AN, drug analysis
naphthalene derivative: DV, drug development
naphthalene derivative: PD, pharmacology
phenylpropionic acid derivative: AN, drug analysis
phenylpropionic acid derivative: DV, drug development
phenylpropionic acid derivative: PD, pharmacology
Salix extract: AN, drug analysis
Salix extract: DV, drug development
Salix extract: PD, pharmacology
herbaceous agent: AN, drug analysis
herbaceous agent: DV, drug development
herbaceous agent: PD, pharmacology

Coriandrum sativum extract: AN, drug analysis
Coriandrum sativum extract: DV, drug development
Coriandrum sativum extract: PD, pharmacology
batatasin III: AN, drug analysis
batatasin III: DV, drug development
batatasin III: PD, pharmacology
3' o methylbatatasin III: AN, drug analysis
3' o methylbatatasin III: DV, drug development
3' o methylbatatasin III: PD, pharmacology
tannin derivative: AN, drug analysis
tannin derivative: DV, drug development
tannin derivative: PD, pharmacology
resveratrol: AN, drug analysis
resveratrol: DV, drug development
resveratrol: PD, pharmacology
rhapontigenin: AN, drug analysis
rhapontigenin: DV, drug development
rhapontigenin: PD, pharmacology
isorhapontigenin: AN, drug analysis
isorhapontigenin: DV, drug development
isorhapontigenin: PD, pharmacology
piceatannol: AN, drug analysis
piceatannol: DV, drug development
piceatannol: PD, pharmacology
oleuroside: AN, drug analysis
oleuroside: DV, drug development
oleuroside: PD, pharmacology
hydroxytyrosol: AN, drug analysis
hydroxytyrosol: DV, drug development
hydroxytyrosol: PD, pharmacology
oleuropein: AN, drug analysis
oleuropein: DV, drug development
oleuropein: PD, pharmacology
acteoside: AN, drug analysis
acteoside: DV, drug development
acteoside: PD, pharmacology
ligustaloside A: AN, drug analysis
ligustaloside A: DV, drug development
ligustaloside A: PD, pharmacology
ligustaloside B: AN, drug analysis
ligustaloside B: DV, drug development
ligustaloside B: PD, pharmacology
ligustrosidic acid: AN, drug analysis
ligustrosidic acid: DV, drug development
ligustrosidic acid: PD, pharmacology
oleuropein derivative: AN, drug analysis
oleuropein derivative: DV, drug development
oleuropein derivative: PD, pharmacology
insularoside: AN, drug analysis
insularoside: DV, drug development
insularoside: PD, pharmacology
unindexed drug
unclassified drug

RN (resveratrol) 501-36-0; (piceatannol) 10083-24-6, 21100-92-5; (hydroxytyrosol) 10597-60-1; (oleuropein) **32619-42-4**; (acteoside) 61276-17-3

L18 ANSWER 29 OF 47 EMBASE

ACCESSION NUMBER: 2005131586 EMBASE
TITLE: Differential anti-inflammatory effects of phenolic compounds from extra virgin olive oil identified in human whole blood cultures.
AUTHOR: Miles E.A.; Zoubouli P.; Calder P.C.
CORPORATE SOURCE: Dr. E.A. Miles, Institute of Human Nutrition, School of Medicine, University of Southampton, Southampton, United Kingdom. eam@soton.ac.uk
SOURCE: Nutrition, (2005) Vol. 21, No. 3, pp. 389-394. .
Refs: 28
ISSN: 0899-9007 CODEN: NUTRER
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050407
Last Updated on STN: 20050407

AB Objective: The olive oil-rich Mediterranean diet protects against cardiovascular disease, which involves inflammatory processes. This study investigated the effects of phenolic compounds found in extra virgin olive oil on inflammatory mediator production by human mononuclear cells. Methods: Diluted human blood cultures were stimulated with lipopolysaccharide in the presence of phenolics (vanillic, p-coumaric, syringic, homovanillic and caffeic acids, kaempferol, oleuropein glycoside, and tyrosol) at concentrations of 10 (-7) to 10(-4) M. Concentrations of the inflammatory cytokines **tumor** necrosis factor-α, interleukin-1β, and interleukin-6 and of the inflammatory eicosanoid prostaglandin E(2) were measured by enzyme-linked immunosorbent assay. Results: Oleuropein glycoside and caffeic acid decreased the concentration of interleukin-1β. At a concentration of 10(-4) M, oleuropein glycoside inhibited interleukin-1β production by 80%, whereas caffeic acid inhibited production by 40%. Kaempferol decreased the concentration of prostaglandin E(2). At a concentration of 10 (-4) M, kaempferol inhibited prostaglandin E(2) production by 95%. No effects were seen on concentrations of interleukin-6 or **tumor** necrosis factor-α and there were no effects of the other phenolic compounds. Conclusions: Some, but not all, phenolic compounds derived from extra virgin olive oil decrease inflammatory mediator production by human whole blood cultures. This may contribute to the antiatherogenic properties ascribed to extra virgin olive oil.

CT Medical Descriptors:
antiinflammatory activity
blood culture
dilution
simulation
concentration response
enzyme linked immunosorbent assay
cytokine production
human
male
normal human
controlled study
human cell
adult
article
priority journal

Drug Descriptors:
*olive oil
lipopolysaccharide
phenol derivative
vanillic acid
para coumaric acid
syringic acid
homovanillic acid
caffeic acid
kaempferol
oleuropein
glycoside
tyrosol
cytokine
tumor necrosis factor alpha
interleukin 1
prostaglandin E2
interleukin 6

RN (olive oil) 8001-25-0; (vanillic acid) 121-34-6; (para coumaric acid) 7400-08-0; (syringic acid) 530-57-4; (homovanillic acid) 306-08-1; (caffeic acid) 27323-69-9, 331-39-5; (kaempferol) 520-18-3; (oleuropein) **32619-42-4**; (tyrosol) 501-94-0; (prostaglandin E2) 363-24-6

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ACCESSION NUMBER: 2005079028 EMBASE
TITLE: The antioxidant properties of Greek foods and the flavonoid content of the Mediterranean menu.
AUTHOR: Vasilopoulou E.; Georga K.; Joergensen M.B.; Naska A.; Trichopoulou A.
CORPORATE SOURCE: A. Trichopoulou, Department of Hygiene/Epidemiology, School of Medicine, Natl./Kapodistrian Univ. of Athens, Mikras Asias 75, Athens 115 27, Greece. antonia@nut.uoa.gr
SOURCE: Current Medicinal Chemistry: Immunology, Endocrine and Metabolic Agents, (2005) Vol. 5, No. 1, pp. 33-45. .
Refs: 117
ISSN: 1568-0134 CODEN: CMCIC8
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050303
Last Updated on STN: 20050303

AB The Mediterranean diet is currently attracting interest because of its health benefits that may be due, in part, to the high content of this diet in antioxidant phytochemicals. The variety and amount of phytochemicals taken with the consumption of primary and composite foods of the Mediterranean diet may provide better antiatherogenic properties than single phytochemicals. Flavonoids are the most important group of plant antioxidants. The Mediterranean diet is characterized by high intake of olive oil, fruit, vegetables, cereals, and legumes, some of which are good sources of flavonoids. Flavonoids consist of six principal classes: flavones, flavonols, flavan-3-ols, flavanones, anthocyanidins and

isoflavones. The flavonoid intake from a traditional Greek plant-based weekly menu was calculated and the daily average flavonoid intake was found 118.6 mg/d, of which flavanones contribute 32% (38.5 mg/d), catechins (the most important group of flavan-3-ols) contribute 28% (32.7 mg/d), flavonols 22% (26.4 mg/d), anthocyanidins 9% (11 mg/d), flavones 8% (8.7 mg/d) and isoflavones contribute 1% (1.3 mg/d). Herbs and spices, which are commonly used in the traditional Greek cuisine, although added in small quantities, significantly contribute to the flavonol and flavone intake due to frequent consumption. The Greek version of the Mediterranean diet with its high consumption of fruit and vegetables is characterized by high intake of flavonoids in comparison to diets in northern European countries. .COPYRGT. 2005 Bentham Science Publishers Ltd.

CT Medical Descriptors:
*Mediterranean diet
antioxidant activity
food composition
fruit
vegetable
legume
cereal
dietary intake
herb
spice
Greece
Europe
geography
heart protection
ischemic heart disease: PC, prevention
cancer: PC, prevention
cancer prevention
drug potency
dose response
antineoplastic activity
fish
alcohol consumption
antiinflammatory activity
milk
dairy product
meat
human
nonhuman
review
Drug Descriptors:
*flavonoid: PD, pharmacology
olive oil: PD, pharmacology
flavone derivative: PD, pharmacology
flavonol derivative: PD, pharmacology
flavan derivative: PD, pharmacology
flavanone derivative: PD, pharmacology
isoflavone derivative: PD, pharmacology
catechin: PD, pharmacology
phenol derivative: DO, drug dose
phenol derivative: PD, pharmacology
hydroxytyrosol: DO, drug dose
hydroxytyrosol: PD, pharmacology
oleuropein: DO, drug dose
oleuropein: PD, pharmacology
anthocyanin: PD, pharmacology

phosphatidylcholine: PD, pharmacology
trypsin inhibitor: PD, pharmacology
phytoestrogen: PD, pharmacology
ferulic acid: PD, pharmacology
resveratrol: PD, pharmacology
tocopherol: PD, pharmacology
ascorbic acid: PD, pharmacology
carotenoid: PD, pharmacology
polyphenol derivative: PD, pharmacology
genistein: PD, pharmacology
daidzein: PD, pharmacology
tannin derivative: PD, pharmacology
phytate: PD, pharmacology
alpha tocotrienol: PD, pharmacology
lignan: PD, pharmacology
epicatechin: PD, pharmacology
quercetin: PD, pharmacology
unindexed drug

RN (olive oil) 8001-25-0; (catechin) 13392-26-2, 154-23-4; (hydroxytyrosol) 10597-60-1; (oleuropein) **32619-42-4**; (phosphatidylcholine) 55128-59-1, 8002-43-5; (trypsin inhibitor) 9035-81-8; (ferulic acid) 1135-24-6, 24276-84-4; (resveratrol) 501-36-0; (tocopherol) 1406-66-2; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (genistein) 446-72-0; (daidzein) 486-66-8; (phytate) 14306-25-3, 7205-52-9; (alpha tocotrienol) 1721-51-3; (epicatechin) 490-46-0; (quercetin) 117-39-5

L18 ANSWER 31 OF 47 EMBASE

ACCESSION NUMBER: 2005049849 EMBASE
TITLE: Olive oil and modulation of cell signaling in disease prevention.
AUTHOR: Wahle K.W.J.; Caruso D.; Ochoa J.J.; Quiles J.L.
CORPORATE SOURCE: K.W.J. Wahle, School of Life Sciences, Robert Gordon University, Aberdeen, AB25 1HG, United Kingdom. k.wahle-1@rgu.ac.uk
SOURCE: Lipids, (2004) Vol. 39, No. 12, pp. 1223-1231. .
Refs: 86
ISSN: 0024-4201 CODEN: LPDSAP
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050210
Last Updated on STN: 20050210

AB Epidemiological studies show that populations consuming a predominantly plant-based Mediterranean-style diet exhibit lower incidences of chronic diseases than those eating a northern European or North American diet. This observation has been attributed to the greater consumption of fruits and vegetables and the lower consumption of animal products, particularly fat. Although total fat intake in Mediterranean populations can be higher than in other regions (ca. 40% of calories), the greater proportion is derived from olive oil and not animals. Increased olive oil consumption is implicated in a reduction in cardiovascular disease, rheumatoid arthritis, and, to a lesser extent, a variety of **cancers**. Olive oil intake also has been shown to modulate immune function, particularly the inflammatory processes associated with the immune system. Olive oil

is a nonoxidative dietary component, and the attenuation of the inflammatory process it elicits could explain its beneficial effects on disease risk since oxidative and inflammatory stresses appear to be underlying factors in the etiology of these diseases in man. The antioxidant effects of olive oil are probably due to a combination of its high oleic acid content (low oxidation potential compared with linoleic acid) and its content of a variety of plant antioxidants, particularly oleuropein, hydroxytyrosol, and tyrosol. It is also possible that the high oleic acid content and a proportionate reduction in linoleic acid intake would allow a greater conversion of α-linolenic acid (18:3n-3) to longer-chain n-3 PUFA, which have characteristic health benefits. Adoption of a Mediterranean diet could confer health benefits in high-risk populations.

CT Medical Descriptors:
*dietary intake
cardiovascular disease: PC, prevention
rheumatoid arthritis: PC, prevention
cancer prevention
immunomodulation
inflammation
immune system
risk
oxidative stress
antioxidant activity
Mediterranean diet
nonhuman
conference paper
Drug Descriptors:
*olive oil: PD, pharmacology
oleic acid
antioxidant
oleuropein
hydroxytyrosol
tyrosol
linoleic acid
omega 3 fatty acid

RN (olive oil) 8001-25-0; (oleic acid) 112-80-1, 115-06-0; (oleuropein) **32619-42-4**; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3

L18 ANSWER 32 OF 47 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004355686 EMBASE
TITLE: Olives and olive oil in **cancer** prevention.
AUTHOR: Owen R.W.; Haubner R.; Wurtele G.; Hull W.E.; Spiegelhalder B.; Bartsch H.
CORPORATE SOURCE: R.W. Owen, Div. Toxicol. Cancer Risk Factors, German Cancer Research Center, Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany. R.Owen@DKFZ-Heidelberg.de
SOURCE: European Journal of Cancer Prevention, (2004) Vol. 13, No. 4, pp. 319-326. .
Refs: 28
ISSN: 0959-8278 CODEN: EJUPEK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English

SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040909
Last Updated on STN: 20040909

AB Epidemiologic studies conducted in the latter part of the twentieth century demonstrate fairly conclusively that the people of the Mediterranean basin enjoy a healthy lifestyle with decreased incidence of degenerative diseases. The data show that populations within Europe that consume the so-called 'Mediterranean diet' have lower incidences of major illnesses such as **cancer** and cardiovascular disease. Studies have suggested that the health-conferring benefits of the Mediterranean diet are due mainly to a high consumption of fibre, fish, fruits and vegetables. More recent research has focused on other important factors such as olives and olive oil. Obviously fibre (especially wholegrain-derived products), fruits and vegetables supply an important source of dietary antioxidants. What is the contribution from olives and olive oil? Apparently the potential is extremely high but epidemiologic studies rarely investigate consumption of these very important products in-depth, perhaps due to a lack of exact information on the types and amounts of antioxidants present. Recent studies have shown that olives and olive oil contain antioxidants in abundance. Olives (especially those that have not been subjected to the Spanish brining process) contain up to 16 g/kg typified by acteosides, hydroxytyrosol, tyrosol and phenyl propionic acids. Olive oil, especially extra virgin, contains smaller amounts of hydroxytyrosol and tyrosol, but also contains secoiridoids and lignans in abundance. Both olives and olive oil contain substantial amounts of other compounds deemed to be **anticancer** agents (e.g. squalene and terpenoids) as well as the peroxidation-resistant lipid oleic acid. It seems probable that olive and olive oil consumption in southern Europe represents an important contribution to the beneficial effects on health of the Mediterranean diet. .COPYRGT. 2004 Lippincott Williams & Wilkins.

CT Medical Descriptors:
***cancer prevention**
*olive
lipid peroxidation
Europe
centrifugation
high performance liquid chromatography
gas chromatography
mass spectrometry
nuclear magnetic resonance
liquid chromatography
electrospray mass spectrometry
drug structure
IC 50
antioxidant activity
cancer incidence
dietary intake
oxidative stress
DNA adduct
breast cancer
colorectal cancer
skin cancer
statistical significance
human
article
priority journal
Drug Descriptors:
*olive oil: AN, drug analysis

*olive oil: PD, pharmacology
acteoside: AN, drug analysis
acteoside: PD, pharmacology
hydroxytyrosol: AN, drug analysis
hydroxytyrosol: PD, pharmacology
propionic acid: AN, drug analysis
propionic acid: PD, pharmacology
oleic acid: AN, drug analysis
oleic acid: PD, pharmacology
phenol derivative: AN, drug analysis
phenol derivative: PD, pharmacology
polyphenol derivative: AN, drug analysis
polyphenol derivative: PD, pharmacology
secoiridoid: AN, drug analysis
secoiridoid: PD, pharmacology
lignan derivative: AN, drug analysis
lignan derivative: PD, pharmacology
antineoplastic agent: AN, drug analysis
antineoplastic agent: PD, pharmacology
squalene: AN, drug analysis
squalene: PD, pharmacology
terpenoid derivative: AN, drug analysis
terpenoid derivative: PD, pharmacology
oleuropein: AN, drug analysis
oleuropein: PD, pharmacology
tyrosol: AN, drug analysis
tyrosol: PD, pharmacology
pinoresinol: AN, drug analysis
pinoresinol: PD, pharmacology

RN (olive oil) 8001-25-0; (acteoside) 61276-17-3; (hydroxytyrosol) 10597-60-1; (propionic acid) 72-03-7, 79-09-4; (oleic acid) 112-80-1, 115-06-0; (squalene) 111-02-4, 7683-64-9; (oleuropein) **32619-42-4** ; (tyrosol) 501-94-0; (pinoresinol) 487-36-5

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ACCESSION NUMBER: 2004280692 EMBASE
TITLE: Natural products and synthetic compounds as immunomodulators.
AUTHOR: Kayser O.; Masihi K.N.; Kiderlen A.F.
CORPORATE SOURCE: Dr. A.F. Kiderlen, Robert Koch-Institut, Department of Infectious Diseases, Cellular Defense Mechanisms Unit, Nordufer 20, D-13353 Berlin, Germany
SOURCE: Expert Review of Anti-Infective Therapy, (2003) Vol. 1, No. 2, pp. 319-335. .
Refs: 191
ISSN: 1478-7210 CODEN: ERATCK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 026 Immunology, Serology and Transplantation
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040722
Last Updated on STN: 20040722

AB Research on immunomodulation by natural products or syntheti c derivatives is of key interest for anti-infective therapy for a number of reasons.

Many plant remedies well-known in traditional medicine or refined natural products in clinical use exert their anti-infective effects not only (if at all) by directly affecting the pathogen. At least part of their effect is indirect, by stimulating natural and adaptive defense mechanisms of the host. These findings have now given many empirical therapies a rationale, scientific basis and thereby a means for 'intelligent' improvement. In discovering the molecular mechanisms by which known remedies exert their effects, chosen elements further down the 'chain of command' might be synthesized and applied directly for more rapid and selective cure, omitting unwanted side effects. The direct use of recombinant cytokines, often in combination with antibiotics, is one consequence of this rationale.

CT Medical Descriptors:
medical research
immunomodulation
antibiotic therapy
medicinal plant
traditional medicine
drug use
antibacterial activity
immune response
molecular mechanics
drug synthesis
cell stimulation
macrophage
cytokine release
antiviral activity
lymphocyte proliferation
enzyme induction
immunostimulation
condyloma: DT, drug therapy
condyloma: ET, etiology
Wart virus
basal cell carcinoma: DT, drug therapy
actinic keratosis: DT, drug therapy
molluscum contagiosum: DT, drug therapy
molluscum contagiosum: ET, etiology
Molluscipoxvirus
human
nonhuman
mouse
rat
review
Drug Descriptors:
*immunomodulating agent: DV, drug development
*immunomodulating agent: DT, drug therapy
*immunomodulating agent: PD, pharmacology
*immunomodulating agent: TP, topical drug administration
*natural product: DV, drug development
*natural product: DT, drug therapy
*natural product: PD, pharmacology
*natural product: TP, topical drug administration
Echinacea extract: PD, pharmacology
interleukin 1: EC, endogenous compound
interleukin 6: EC, endogenous compound
interleukin 10: EC, endogenous compound
tumor necrosis factor alpha: EC, endogenous compound
nitric oxide: EC, endogenous compound
plant extract: PD, pharmacology

plant extract: IP, intraperitoneal drug administration
Antelaea azadirachata: PD, pharmacology
Antelaea azadirachata: IP, intraperitoneal drug administration
flavonoid: PD, pharmacology
resveratrol: PD, pharmacology
naringenin: PD, pharmacology
arctigenin: PD, pharmacology
phenol derivative: PD, pharmacology
inducible nitric oxide synthase: EC, endogenous compound
lignan: PD, pharmacology
tannin: PD, pharmacology
coumarin: PD, pharmacology
scopoletin: PD, pharmacology
oleuropein: PD, pharmacology
saponin derivative: PD, pharmacology
ginseng saponin: PD, pharmacology
bryostatin: PD, pharmacology
glycoprotein: PD, pharmacology
paclitaxel: PD, pharmacology
oligodeoxynucleotide: PD, pharmacology
imiquimod: DT, drug therapy
imiquimod: TP, topical drug administration
inosine phosphate: DT, drug therapy
unindexed drug
unclassified drug

RN (nitric oxide) 10102-43-9; (resveratrol) 501-36-0; (naringenin) 480-41-1, 67604-48-2; (arctigenin) 7770-78-7; (inducible nitric oxide synthase) 501433-35-8; (tannin) 1401-55-4; (coumarin) 91-64-5; (scopoletin) 92-61-5; (oleuropein) **32619-42-4**; (paclitaxel) 33069-62-4; (imiquimod) 99011-02-6; (inosine phosphate) 131-99-7

CN (1) Taxol; (2) Aldara

CO (1) Bristol Myers Squibb (United States); (2) 3M (United States)

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ACCESSION NUMBER: 2003069313 EMBASE
TITLE: Olive-oil consumption and **cancer** risk.
AUTHOR: Filik L.; Ozyilkan O.
SOURCE: European Journal of Clinical Nutrition, (1 Jan 2003) Vol. 57, No. 1, pp. 191. .
Refs: 4
ISSN: 0954-3007 CODEN: EJCNEQ
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Letter
FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
LANGUAGE: English
ENTRY DATE: Entered STN: 20030220
Last Updated on STN: 20030220

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

CT Medical Descriptors:
*fat intake
***cancer risk**
diet
Southern Europe
cancer prevention
heart protection
ischemic heart disease: PC, prevention
food composition

aging
oxidative stress
cancer incidence
antioxidant activity
lipid peroxidation
public health
human
letter
Drug Descriptors:
*olive oil
phenol derivative
squalene
monounsaturated fatty acid
oleic acid
antioxidant
hydroxytyrosol
tyrosol
oleuropein
lignan
secoiridoid

RN (olive oil) 8001-25-0; (squalene) 111-02-4, 7683-64-9; (oleic acid) 112-80-1, 115-06-0; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0; (oleuropein) **32619-42-4**

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ACCESSION NUMBER: 2003243873 EMBASE
TITLE: UV-induced skin damage.
AUTHOR: Ichihashi M.; Ueda M.; Budiyanto A.; Bito T.; Oka M.; Fukunaga M.; Tsuru K.; Horikawa T.
CORPORATE SOURCE: M. Ichihashi, Division of Dermatology, Dept. of Clinical Molecular Medicine, Kobe Univ. Grad. School of Medicine, 7-5-1, Kusunoki-cho, Chuo-ku, Kobe 650-0017, Japan. ichihash@med.kobe.ac.jp
SOURCE: Toxicology, (15 Jul 2003) Vol. 189, No. 1-2, pp. 21-39. .
Refs: 135
ISSN: 0300-483X CODEN: TXCYAC
COUNTRY: Ireland
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 013 Dermatology and Venereology
016 Cancer
030 Pharmacology
037 Drug Literature Index
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20030703
Last Updated on STN: 20030703

AB Solar radiation induces acute and chronic reactions in human and animal skin. Chronic repeated exposures are the primary cause of benign and malignant skin **tumors**, including malignant melanoma. Among types of solar radiation, ultraviolet B (290-320 nm) radiation is highly mutagenic and carcinogenic in animal experiments compared to ultraviolet A (320-400 nm) radiation. Epidemiological studies suggest that solar UV radiation is responsible for skin **tumor** development via gene mutations and immunosuppression, and possibly for photoaging. In this review, recent understanding of DNA damage caused by direct UV radiation and by indirect stress via reactive oxygen species (ROS) and DNA repair mechanisms, particularly nucleotide excision repair of human cells, are

discussed. In addition, mutations induced by solar UV radiation in p53, ras and patched genes of non-melanoma skin **cancer** cells, and the role of ROS as both a promoter in UV-carcinogenesis and an inducer of UV-apoptosis, are described based primarily on the findings reported during the last decade. Furthermore, the effect of UV on immunological reaction in the skin is discussed. Finally, possible prevention of UV-induced skin **cancer** by feeding or topical use of antioxidants, such as polyphenols, vitamin C, and vitamin E, is discussed. .COPYRGT. 2003 Published by Elsevier Science Ireland Ltd.

CT Medical Descriptors:
*skin defect
*radiation injury
*radiation carcinogenesis: EP, epidemiology
*radiation carcinogenesis: ET, etiology
*skin carcinogenesis: EP, epidemiology
*skin carcinogenesis: ET, etiology
skin manifestation
radiation exposure
benign tumor: ET, etiology
skin carcinoma: ET, etiology
melanoma: ET, etiology
solar radiation
ultraviolet B radiation
ultraviolet A radiation
ultraviolet C radiation
mutagenesis
epidemiological data
gene mutation
immune deficiency
aging
DNA damage
oxidative stress
DNA repair
excision repair
cancer cell
promoter region
apoptosis
cancer prevention
radiation protection
dietary intake
topical treatment
DNA adduct
xeroderma pigmentosum
seborrheic keratosis
genetic complementation
DNA synthesis
Cockayne syndrome: ET, etiology
trichothiodystrophy: ET, etiology
protein function
DNA transcription
signal transduction
radiation dose
systemic disease
cytokine production
human
nonhuman
review
priority journal
Drug Descriptors:

reactive oxygen metabolite: TO, drug toxicity
protein p53: EC, endogenous compound
Rac protein: EC, endogenous compound
antioxidant: PD, pharmacology
antioxidant: TP, topical drug administration
polyphenol derivative: PD, pharmacology
polyphenol derivative: PO, oral drug administration
polyphenol derivative: TP, topical drug administration
ascorbic acid: PD, pharmacology
ascorbic acid: TP, topical drug administration
alpha tocopherol: PD, pharmacology
alpha tocopherol: TP, topical drug administration
cyclobutane derivative: TO, drug toxicity
pyrimidine derivative: TO, drug toxicity
pyrimidinone derivative: TO, drug toxicity
thymine: TO, drug toxicity
cytosine: TO, drug toxicity
8 hydroxydeoxyguanosine: TO, drug toxicity
protein: EC, endogenous compound
membrane protein: EC, endogenous compound
protein xpd: EC, endogenous compound
protein XPB: EC, endogenous compound
mitogen activated protein kinase 1: EC, endogenous compound
mitogen activated protein kinase 2: EC, endogenous compound
transcription factor AP 1: EC, endogenous compound
protein kinase C delta: EC, endogenous compound
interleukin 12: EC, endogenous compound
gamma interferon: EC, endogenous compound
interleukin 10: EC, endogenous compound
green tea extract: PD, pharmacology
green tea extract: PO, oral drug administration
black tea extract: PD, pharmacology
black tea extract: PO, oral drug administration
phytic acid: EC, endogenous compound
olive oil: PD, pharmacology
oleuropein: PD, pharmacology
unindexed drug
unclassified drug

RN (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (thymine) 65-71-4; (cytosine) 71-30-7; (protein) 67254-75-5; (mitogen activated protein kinase 1) 137632-07-6; (mitogen activated protein kinase 2) 137632-08-7; (interleukin 12) 138415-13-1; (gamma interferon) 82115-62-6; (phytic acid) 83-86-3; (olive oil) 8001-25-0; (oleuropein) **32619-42-4**

L18 ANSWER 36 OF 47 EMBASE

ACCESSION NUMBER: 2003035183 EMBASE
TITLE: The randomized controlled trial in studies using biomarkers.
AUTHOR: Vineis P.
CORPORATE SOURCE: P. Vineis, Dipt. di Sci. Biomed. e Oncol. Umana, University of Torino, via Santena 7, Torino, Italy. paolo.vineis@unito.it
SOURCE: Biomarkers, (2003) Vol. 8, No. 1, pp. 13-32. .
Refs: 21
ISSN: 1354-750X CODEN: BIOMFA
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 016 Cancer
017 Public Health, Social Medicine and Epidemiology
028 Urology and Nephrology
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20030130
Last Updated on STN: 20030130

AB The randomized controlled trial (RCT) is a scientific experiment during which observations on the effects of therapy or a preventive action are conducted by the researcher under rigorous control. The purpose of the experiment is to clear the uncertainties surrounding a clinical/research issue and involves isolating the 'treatment' and 'end result' variables from external influences. RCTs therefore make use of scientific method standards: measuring, which includes the possibility of reproducing observations; controlling factors unconnected to the cause-effect relationship of interest; and the external verification or 'falsification' of the cause-effect relationship. Many RCTs are now including biomarkers to answer scientific questions in a more accurate way. In the present methodological paper, the main aspects involved in the design and conduction of a trial are discussed, with special emphasis on the use of biomarkers. Aspects that are often overlooked by scientists involved in the design of trials include multiple comparisons, subgroup analysis, the duration of the observations, the use of surrogate endpoints, and ethical issues. This review summarizes the main issues that should be addressed in a protocol, and illustrates these with an example.

CT Medical Descriptors:
experimental design
clinical observation
clinical research
methodology
standardization
medical ethics
clinical protocol
DNA damage
mutagenic activity
cancer prevention
bladder cancer: PC, prevention
randomized controlled trial
DNA adduct
bladder carcinogenesis
dietary intake
nutritional value
human
clinical trial
review
Drug Descriptors:
*flavanoid: CT, clinical trial
*flavanoid: PD, pharmacology
*biological marker
antioxidant: CT, clinical trial
antioxidant: PD, pharmacology
antimutagenic agent: CT, clinical trial
antimutagenic agent: PD, pharmacology
2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine
carcinogen
oleuropein

polyphenol: EC, endogenous compound
polyphenol: PD, pharmacology
RN (2 amino 1 methyl 6 phenylimidazo[4,5 b]pyridine) 105650-23-5; (oleuropein) **32619-42-4**; (polyphenol) 37331-26-3

L18 ANSWER 37 OF 47 EMBASE

ACCESSION NUMBER: 2002286207 EMBASE
TITLE: Exocyclic DNA adducts as oxidative stress markers in colon carcinogenesis: Potential role of lipid peroxidation, dietary fat and antioxidants.
AUTHOR: Bartsch H.; Nair J.; Owen R.W.
CORPORATE SOURCE: H. Bartsch, Div. of Toxicol./Cancer Risk Factors, German Cancer Research Center DKFZ, Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany
SOURCE: Biological Chemistry, (2002) Vol. 383, No. 6, pp. 915-921.
.
Refs: 47
ISSN: 1431-6730 CODEN: BICHF3
COUNTRY: Germany
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
016 Cancer
030 Pharmacology
037 Drug Literature Index
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20020829
Last Updated on STN: 20020829

AB Molecular pathways to colorectal **cancer** involve multiple genetic changes, whereby extensive oxyradical damage causes mutations in **cancer**-related genes and leads to a cycle of cell death and regenaration. Besides direct oxidative DNA-damage, reactive oxygen and nitrogen species can induce etheno (ε)-DNA adducts mainly via trans-4-hydroxy-2-nonenal, generated as the major aldehyde by lipid peroxidation (LPO) of ω-6 PUFAs. Patients with familial adenomatous polyposis (FAP) develop multiple colorectal adenomas. In affected tissues increased LPO could be trigered due to increased arachidonic acid metabolism as a result of elevated cyclooxygenase. Our studies demonstrated an increased ε-DNA adduct level in affected colon epithelia of FAP patients. ε-DNA adducts are promutagenic and can cause genomic instability that drives colorectal adenoma to malignancy. We have further investigated the potential chemopreventive properties of olive oil and its polyphenolic components. 'Mediterranean diet', of which olive oil is a major fatty acid source, has protective effects against human breast and colorectal **cancers**. Olive oil extracts and the newly identified lignan fractions showed high antioxidant capacity in vitro. As ε-DNA adducts are biomarkers for oxidative stress and LPO induced DNA damage, they can verify the efficacy of newly identified antioxidants, e.g. from olive oil, as chemopreventive agents against colon carcinogenesis.

CT Medical Descriptors:
*DNA adduct
*colon carcinogenesis
oxidative stress
lipid peroxidation
fat intake
colorectal cancer: DI, diagnosis

colorectal cancer: ET, etiology
gene mutation
cell death
cell regeneration
DNA damage
adenomatous polyp: DI, diagnosis
arachidonic acid metabolism
colon mucosa
genome
malignant transformation
cancer prevention
breast cancer: DI, diagnosis
in vitro study
drug structure
antineoplastic activity
human
female
controlled study
human tissue
review
priority journal
Drug Descriptors:
*DNA: EC, endogenous compound
*antioxidant: AN, drug analysis
*antioxidant: CM, drug comparison
*antioxidant: PD, pharmacology
tumor marker: EC, endogenous compound
lipid: EC, endogenous compound
fat
reactive oxygen metabolite: EC, endogenous compound
nitrogen: EC, endogenous compound
4 hydroxynonenal: EC, endogenous compound
aldehyde derivative: EC, endogenous compound
omega 6 fatty acid
arachidonic acid: EC, endogenous compound
prostaglandin synthase: EC, endogenous compound
promutagen
olive oil: AN, drug analysis
olive oil: CM, drug comparison
olive oil: PD, pharmacology
polyphenol derivative: AN, drug analysis
polyphenol derivative: CM, drug comparison
polyphenol derivative: PD, pharmacology
fatty acid
lignan derivative: AN, drug analysis
lignan derivative: CM, drug comparison
lignan derivative: PD, pharmacology
secoiridoid: AN, drug analysis
secoiridoid: PD, pharmacology
oleuropein: AN, drug analysis
oleuropein: PD, pharmacology
hydroxytyrosol: AN, drug analysis
hydroxytyrosol: PD, pharmacology
tyrosol: AN, drug analysis
tyrosol: CM, drug comparison
tyrosol: PD, pharmacology
trolox C: CM, drug comparison
trolox C: PD, pharmacology
alpha tocopherol

RN (DNA) 9007-49-2; (lipid) 66455-18-3; (nitrogen) 7727-37-9; (4 hydroxynonenal) 29343-52-0, 75899-68-2; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (prostaglandin synthase) 39391-18-9, 59763-19-8, 9055-65-6; (olive oil) 8001-25-0; (oleuropein) **32619-42-4**; (hydroxytyrosol) 10597-60-1; (tyrosol) 501-94-0; (trolox C) 56305-04-5; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9

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ACCESSION NUMBER: 2000409319 EMBASE
TITLE: Protective effect of topically applied olive oil against photocarcinogenesis following UVB exposure of mice.
AUTHOR: Budiyanto A.; Ahmed N.U.; Wu A.; Bito T.; Nikaido O.; Osawa T.; Ueda M.; Ichihashi M.
CORPORATE SOURCE: M. Ueda, Department of Dermatology, Kobe University School of Medicine, 7-5-1 Kusunoki-cho, Chuo-ku, Kobe 650-0017, Japan. mueda@med.kobe-u.ac.jp
SOURCE: Carcinogenesis, (2000) Vol. 21, No. 11, pp. 2085-2090. .
Refs: 31
ISSN: 0143-3334 CODEN: CRNGDP
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 013 Dermatology and Venereology
016 Cancer
030 Pharmacology
037 Drug Literature Index
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20001213
Last Updated on STN: 20001213

AB Reactive oxygen species have been shown to play a role in ultraviolet light (UV)-induced skin carcinogenesis. Vitamin E and green tea polyphenols reduce experimental skin **cancers** in mice mainly because of their antioxidant properties. Since olive oil has also been reported to be a potent antioxidant, we examined its effect on UVB-induced skin carcinogenesis in hairless mice. Extra-virgin olive oil was applied topically before or after repeated exposure of mice to UVB. The onset of UVB-induced skin **tumors** was delayed in mice painted with olive oil compared with UVB control mice. However, with increasing numbers of UVB exposures, differences in the mean number of **tumors** between UVB control mice and mice pretreated with olive oil before UVB exposure (pre-UVB group) were lost. In contrast, mice that received olive oil after UVB exposure (post-UVB group) showed significantly lower numbers of **tumors** per mouse than those in the UVB control group throughout the experimental period. The mean number of **tumors** per mouse in the UVB control, pre-UVB and post-UVB groups was 7.33, 6.69 and 2.64, respectively, in the first experiment, and 8.53, 9.53 and 3.36 in the second experiment. Camellia oil was also applied, using the same experimental protocol, but did not have a suppressive effect. Immunohistochemical analysis of DNA damage in the form of cyclobutane pyrimidine dimers (CPD), (6-4) photoproducts and 8-hydroxy-2'-deoxyguanosine (8-OHdG) in samples taken 30 min after a single exposure of UVB showed no significant difference between UVB-irradiated control mice and the pre-UVB group. In the post-UVB group, there were lower levels of 8-OHdG in epidermal nuclei, but the formation of CPD and (6-4) photoproducts did not differ. Exposure of olive oil to UVB before application abrogated the protective effect on 8-OHdG formation. These results indicate that olive oil topically applied after UVB exposure can

effectively reduce UVB-induced murine skin **tumors**, possibly via its anti-oxidant effects in reducing DNA damage by reactive oxygen species, and that the effective component may be labile to UVB.

CT Medical Descriptors:
*ultraviolet B radiation
*skin carcinogenesis: DT, drug therapy
*skin carcinogenesis: PC, prevention
phototoxicity: DT, drug therapy
phototoxicity: PC, prevention
cancer prevention
skin protection
radiation exposure
tea
drug potency
antioxidant activity
nude mouse
skin tumor: DT, drug therapy
skin tumor: PC, prevention
cancer inhibition
tumor growth: DT, drug therapy
tumor growth: PC, prevention
immunohistochemistry
DNA damage
cell nucleus
epidermis cell
nonhuman
female
mouse
animal experiment
animal model
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*olive oil: CM, drug comparison
*olive oil: DT, drug therapy
*olive oil: PD, pharmacology
*olive oil: TP, topical drug administration
skin protective agent: CM, drug comparison
skin protective agent: DT, drug therapy
skin protective agent: PD, pharmacology
skin protective agent: TP, topical drug administration
reactive oxygen metabolite: EC, endogenous compound
alpha tocopherol: DT, drug therapy
alpha tocopherol: PD, pharmacology
polyphenol: DT, drug therapy
polyphenol: PD, pharmacology
plant extract: CM, drug comparison
plant extract: DT, drug therapy
plant extract: PD, pharmacology
plant extract: TP, topical drug administration
antioxidant: CM, drug comparison
antioxidant: DT, drug therapy
antioxidant: PD, pharmacology
antioxidant: TP, topical drug administration
camellia oil: CM, drug comparison
camellia oil: PD, pharmacology
cyclobutane derivative: EC, endogenous compound

pyrimidine dimer: EC, endogenous compound
8 hydroxydeoxyguanosine: EC, endogenous compound
DNA: EC, endogenous compound
gene product: EC, endogenous compound
beta carotene: EC, endogenous compound
ascorbic acid: EC, endogenous compound
scavenger: EC, endogenous compound
triterpene derivative: CM, drug comparison
triterpene derivative: PD, pharmacology
phorbol 13 acetate 12 myristate
photoprotein: EC, endogenous compound
epicatechin gallate
epigallocatechin
epigallocatechin gallate
Ras protein: EC, endogenous compound
phenol derivative
oleuropein
squalene
hydroxymethylglutaryl coenzyme A reductase: EC, endogenous compound
4 (methylnitrosamino) 1 (3 pyridyl) 1 butanone
azoxymethane
unclassified drug

RN (olive oil) 8001-25-0; (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4, 58-95-7, 59-02-9; (polyphenol) 37331-26-3; (pyrimidine dimer) 25247-63-6; (DNA) 9007-49-2; (beta carotene) 7235-40-7; (ascorbic acid) 134-03-2, 15421-15-5, 50-81-7; (phorbol 13 acetate 12 myristate) 16561-29-8; (epicatechin gallate) 863-03-6; (epigallocatechin) 970-74-1; (epigallocatechin gallate) 989-51-5; (oleuropein) **32619-42-4**; (squalene) 111-02-4, 7683-64-9; (hydroxymethylglutaryl coenzyme A reductase) 37250-24-1; (4 (methylnitrosamino) 1 (3 pyridyl) 1 butanone) 64091-91-4; (azoxymethane) 25843-45-2

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ACCESSION NUMBER: 2000163671 EMBASE
TITLE: [Polyphenols: Simple structures with high potency]. POLYPHENOLE: EINFACHE STRUKTUREN MIT HOHEM POTENZIAL.
AUTHOR: Metz G.
CORPORATE SOURCE: Dr. G. Metz, Auf dem Rucken 29, 89146 Blaubeuren, Germany
SOURCE: Pharmazeutische Zeitung, (20 Apr 2000) Vol. 145, No. 16, pp. 23-28. .
Refs: 6
ISSN: 0031-7136 CODEN: PZSED5
COUNTRY: Germany
DOCUMENT TYPE: Journal; (Short Survey)
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: German
ENTRY DATE: Entered STN: 20000525
Last Updated on STN: 20000525
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

CT Medical Descriptors:
*drug structure
drug potency
antineoplastic activity
short survey
Drug Descriptors:
*polyphenol derivative
coumarin

furocoumarin
antioxidant
propolis
oleuropein
RN (coumarin) 91-64-5; (propolis) 8012-89-3; (oleuropein) **32619-42-4**

L18 ANSWER 40 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:329527 BIOSIS
DOCUMENT NUMBER: PREV200510114940
TITLE: Quantitation of oleuropein and related metabolites in decoctions of Olea europaea leaves from ten Greek cultivated varieties by HPLC with diode array detection (HPLC-DAD).
AUTHOR(S): Agalias, Apostolis; Melliou, Eleni; Magiatis, Prokopios; Mitaku, Sofia [Reprint Author]; Gikas, Evagelos; Tsarbopoulos, Anthony
CORPORATE SOURCE: Univ Athens, Dept Pharm, Div Pharmacognosy and Nat Prod Chem, Panepistimiopolis Zografou, GR-15771 Athens, Greece mitakou@pharm.uoa.gr
SOURCE: Journal of Liquid Chromatography & Related Technologies, (2005) Vol. 28, No. 10, pp. 1557-1571. ISSN: 1082-6076.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Aug 2005
Last Updated on STN: 25 Aug 2005

AB An extraction procedure and chromatographic methodology for the simultaneous quantitation of four major constituents in the boiling water extracts (decoctions) of Olea europaea leaves has been developed. The four studied constituents were oleuropein, elenolic acid, hydroxytyrosol, and tyrosol. The quantitation was performed using HPLC-DAD, whereas qualitative data were acquired using LC-MS. The developed methodology was applied in the study-of ten Olea europaea varieties commonly cultivated in Greece. The chromatographic analysis revealed important differences among the varieties. The decoction of variety gaidouroelia was identified as the best source of oleuropein, but it was completely lacking of elenolic acid. The decoction of variety koronaiiki was the best source of hydroxytyrosol, whereas the variety mastoides was the best source of tyrosol and elenolic acid. In addition, the methanol and acetone extracts of one of the studied varieties (koranaiiki) were investigated, in order to compare the concentration of oleuropein in the extracts and the decoction. Interestingly, only a very low percent of the total oleuropein is present in the traditionally prepared decoction, while elenolic acid, which is a minor constituent of the extracts, was found to be one of the major constituents of the decoction.

CC Pathology - Therapy 12512
Pharmacology - Cardiovascular system 22010
Neoplasms - Therapeutic agents and therapy 24008
Horticulture - Tropical, subtropical fruits and plantation crops 53004
Pharmacognosy and pharmaceutical botany 54000
IT Major Concepts
Methods and Techniques; Pharmacognosy (Pharmacology)
IT Parts, Structures, & Systems of Organisms
leaves
IT Chemicals & Biochemicals
Olea europaea decoction: **antineoplastic**-drug, antiarrhythmic-drug, antihypertensive-drug, cardiovascular-drug; oleuropein: **antineoplastic**-drug, antiarrhythmic-drug,

antihypertensive-drug, cardiovascular-drug; hydroxytyrosol: **antineoplastic**-drug, antiarrhythmic-drug, antihypertensive-drug, cardiovascular-drug; tyrosol: **antineoplastic**-drug, antiarrhythmic-drug, antihypertensive-drug, cardiovascular-drug; elenolic acid: **antineoplastic**-drug, antiarrhythmic-drug, antihypertensive-drug, cardiovascular-drug

IT Methods & Equipment
LC-MS [liquid chromatography-mass spectrometry]: laboratory techniques, spectrum analysis techniques, chromatographic techniques; HPLC-DAD [high performance liquid chromatography-diode array detection]: laboratory techniques, chromatographic techniques

GT Greece (Europe, Palearctic region)

ORGN Classifier
Oleaceae 26475
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Olea europaea (species): medicinal plant, tropical/subtropical fruit crop
Olea europaea gaidouroelia (variety): medicinal plant, tropical/subtropical fruit crop
Olea europaea koronaiiki (variety): medicinal plant, tropical/subtropical fruit crop
Olea europaea mastoides (variety): medicinal plant, tropical/subtropical fruit crop
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

RN **32619-42-4** (oleuropein)
10597-60-1 (hydroxytyrosol)
501-94-0 (tyrosol)
34422-12-3 (elenolic acid)

L18 ANSWER 41 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:350361 BIOSIS
DOCUMENT NUMBER: PREV200400348082
TITLE: Production of highly purified hydroxytyrosol from Olea europaea leaf extract biotransformed by hyperthermophilic beta-glycosidase.
AUTHOR(S): Briante, Raffaella; Patumi, Maurizio; Febbraio, Ferdinando; Nucci, Roberto [Reprint Author]
CORPORATE SOURCE: Ist Biochim Prot, CNR, Via Marconi 10, I-80125, Naples, Italy
r.nucci@ibp.cnr.it
SOURCE: Journal of Biotechnology, (July 1 2004) Vol. 111, No. 1, pp. 67-77. print.
ISSN: 0168-1656 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Aug 2004
Last Updated on STN: 18 Aug 2004

AB A large amount of highly purified hydroxytyrosol (91-94% in weight) is obtained in short time by a simple biotransformation of Olea europaea leaf extract by a partially purified hyperthermophilic beta-glycosidase immobilized on chitosan support. The biotransformation conditions have been modulated for increasing the hydroxytyrosol yield, whilst chitosan and chitin matrices are used as adsorbent materials in liquid phase hydroxytyrosol extraction from the biotransformed mixtures. Natural and non-toxic hydroxytyrosol has been by this way produced from a vegetal

source, and this compound appeared for the first time highly purified by natural and biocompatible safe biopolymers in comparison to previous results. Moreover, the GC analyses have displayed that the eluates from a two-step bioreactor have qualitative composition very similar to that of the extra-virgin olive oil polar fraction. The proposed bioreactor could also find application in the utilization of olive mill waste waters (OMWW), medium rich in large amounts of oleuropein, which can be converted in pharmacologically active compounds.

CC Biochemistry studies - Carbohydrates 10068
Biophysics - Bioenergetics: electron transport and oxidative phosphorylation 10510
Digestive system - Pathology 14006
Cardiovascular system - Heart pathology 14506
Reproductive system - Pathology 16506
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Public health: epidemiology - Miscellaneous 37056
Plant physiology - Photosynthesis 51506

IT Major Concepts
Bioenergetics (Biochemistry and Molecular Biophysics); Epidemiology (Population Studies)

IT Diseases
breast **cancer**: **neoplastic** disease, reproductive system disease/female
Breast **Neoplasms** (MeSH)

IT Diseases
colon **cancer**: digestive system disease, **neoplastic** disease
Colonic **Neoplasms** (MeSH)

IT Diseases
coronary heart disease: heart disease, CHD
Coronary Disease (MeSH)

IT Chemicals & Biochemicals
beta-glycosidase [EC 3.2.1.21]: hyperthermophilic; biopolymers; chitin; chitosan; hydroxytyrosol: highly purified; oleuropein; olive oil

IT Methods & Equipment
gas chromatography: chromatographic techniques, laboratory techniques

ORGN Classifier
Oleaceae 26475
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Olea europaea (species): leaf extract
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

RN 39346-29-7 (beta-glycosidase)
9001-22-3 (beta-glycosidase)
39346-29-7 (EC 3.2.1.21)
9001-22-3 (EC 3.2.1.21)
1398-61-4 (chitin)
9012-76-4 (chitosan)
10597-60-1 (hydroxytyrosol)
32619-42-4 (oleuropein)

L18 ANSWER 42 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:122403 BIOSIS
DOCUMENT NUMBER: PREV200500125839
TITLE: Olive oil and oxidative stress.

AUTHOR(S): Visioli, Francesco [Reprint Author]; Bogani, Paola; Grande, Simona; Gail, Claudio
CORPORATE SOURCE: Dept Pharmacol Sci, Univ Milan, Milan, Italy
francesco.visioli@unini.it
SOURCE: Grasas y Aceites, (January 2004) Vol. 55, No. 1, pp. 66-75. print.
ISSN: 0017-3495 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Apr 2005
Last Updated on STN: 1 Apr 2005

AB In addition to the fatty acid profile of olive oil, which is high in the monounsaturated oleic acid and appears to be beneficial in reducing several risk factors for coronary heart disease and certain **cancers**, extra virgin olive oil contains a considerable amount of phenolic compounds, e.g. hydroxytyrosol and oleuropein, that are responsible for its peculiar taste and for its high stability. A body of evidence demonstrates that olive oil phenolics are powerful antioxidants. Although most of these studies have been carried out in vitro, some in vivo experiments confirm that olive oil phenolics are dose-dependently absorbed and that they retain their biological activities after ingestion. These data could in part explain the lower incidence of coronary heart disease in the Mediterranean area, where (extra virgin) olive oil is the principal source of fat.

CC Biochemistry studies - Lipids 10066
Nutrition - General studies, nutritional status and methods 13202
Cardiovascular system - Heart pathology 14506
Public health: epidemiology - Organic diseases and neoplasms 37054
Public health: epidemiology - Miscellaneous 37056

IT Major Concepts
Cardiovascular Medicine (Human Medicine, Medical Sciences); Epidemiology (Population Studies); Nutrition

IT Diseases
coronary heart disease: heart disease, epidemiology
Coronary Disease (MeSH)

IT Chemicals & Biochemicals
hydroxytyrosol; oleic acid; oleuropein

IT Miscellaneous Descriptors
olive oil: fats and oils; oxidative stress

GT Mediterranean Region

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 10597-60-1 (hydroxytyrosol)
112-80-1 (oleic acid)
32619-42-4 (oleuropein)

L18 ANSWER 43 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:378026 BIOSIS
DOCUMENT NUMBER: PREV200400378017
TITLE: Differential anti-inflammatory effects of phenolic compounds from olive oil identified in human whole blood cultures.

AUTHOR(S): Miles, E. A. [Reprint Author]; Zoubouli, R.; Calder, P. C.
CORPORATE SOURCE: Sch MedInst Human Nutr, Univ Southampton, Southampton, Hants, SO16 7PX, England
SOURCE: Chemistry and Physics of Lipids, (June 2004) Vol. 130, No. 1, pp. 34-35. print.
Meeting Info.: 45th International Conference on the Bioscience of Lipids. Ioannina, Greece. May 25-29, 2004.
ISSN: 0009-3084 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Sep 2004
Last Updated on STN: 22 Sep 2004

CC General biology - Symposia, transactions and proceedings 00520
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Lipids 10066
Biochemistry studies - Carbohydrates 10068
Food technology - General and methods 13502
Food technology - Fats and oils 13514
Cardiovascular system - Heart pathology 14506
Cardiovascular system - Blood vessel pathology 14508
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Endocrine - General 17002

IT Major Concepts
Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); Foods

IT Parts, Structures, & Systems of Organisms
whole blood: blood and lymphatics

IT Diseases
cardiovascular disease: heart disease, vascular disease, prevention and control
Cardiovascular Diseases (MeSH)

IT Chemicals & Biochemicals
IL-6 [interleukin-6]; caffeic acid; eicosanoids; homovanillic acid; inflammatory cytokines; kaempferol; lipopolysaccharide; oleuropein; p-coumaric acid; phenolic compounds: differential anti-inflammatory effects, olive oil-derived; prostaglandin E-2; syringic acid; **tumor** necrosis factor-alpha; tyrosol; vanillic acid

IT Methods & Equipment
ELISA: immunologic techniques, laboratory techniques

IT Miscellaneous Descriptors
olive oil: fats and oils; olive oil-rich Mediterranean diet

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 331-39-5 (caffeic acid)
306-08-1 (homovanillic acid)
520-18-3 (kaempferol)
32619-42-4 (oleuropein)
7400-08-0 (p-coumaric acid)
363-24-6 (prostaglandin E-2)
530-57-4 (syringic acid)

501-94-0 (tyrosol)
121-34-6 (vanillic acid)

L18 ANSWER 44 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:421390 BIOSIS
DOCUMENT NUMBER: PREV200200421390
TITLE: Biological properties of olive oil phytochemicals.
AUTHOR(S): Visioli, Francesco [Reprint author]; Galli, Claudio
CORPORATE SOURCE: University of Milan, Institute of Pharmacological Sciences, Via Balzaretti 9, 20133, Milan, Italy francesco.visioli@unimi.it
SOURCE: Critical Reviews in Food Science and Nutrition, (May, 2002) Vol. 42, No. 3, pp. 209-221. print. ISSN: 1040-8398.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Aug 2002
Last Updated on STN: 7 Aug 2002
CC Biochemistry studies - General 10060
Biochemistry studies - Lipids 10066
Nutrition - General studies, nutritional status and methods 13202
Food technology - General and methods 13502
Food technology - Fats and oils 13514
Cardiovascular system - Physiology and biochemistry 14504
Cardiovascular system - Heart pathology 14506
Neoplasms - Pathology, clinical aspects and systemic effects 24004
IT Major Concepts
Biochemistry and Molecular Biophysics; Cardiovascular System (Transport and Circulation); Foods; Nutrition
IT Diseases
cancer: **neoplastic** disease
Neoplasms (MeSH)
IT Diseases
coronary heart disease: heart disease, CHD
Coronary Disease (MeSH)
IT Chemicals & Biochemicals
antioxidants; fat; hydroxytyrosol; oleuropein; phenolic compounds; phytochemicals; squalene
IT Miscellaneous Descriptors
Mediterranean diet: healthful effects; olive oil: fats and oils
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN **32619-42-4** (oleuropein)
111-02-4 (squalene)

L18 ANSWER 45 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:143530 BIOSIS
DOCUMENT NUMBER: PREV200200143530
TITLE: Antioxidant and other biological activities of phenols from olives and olive oil.

AUTHOR(S): Visioli, Francesco [Reprint author]; Poli, Andrea; Galli, Claudio
CORPORATE SOURCE: Department of Pharmacological Sciences, University of Milan, Via Balzaretti 9, 20133, Milan, Italy francesco.visioli@unimi.it
SOURCE: Medicinal Research Reviews, (January, 2002) Vol. 22, No. 1, pp. 65-75. print.
CODEN: MRREDD. ISSN: 0198-6325.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Feb 2002
Last Updated on STN: 26 Feb 2002
CC Biochemistry studies - General 10060
Nutrition - General studies, nutritional status and methods 13202
Cardiovascular system - Heart pathology 14506
Cardiovascular system - Blood vessel pathology 14508
Neoplasms - Pathology, clinical aspects and systemic effects 24004
IT Major Concepts
Nutrition
IT Diseases
atherosclerosis: vascular disease
Arteriosclerosis (MeSH)
IT Diseases
cancer: **neoplastic** disease
Neoplasms (MeSH)
IT Diseases
coronary heart disease: heart disease
Coronary Disease (MeSH)
IT Chemicals & Biochemicals
hydroxytyrosol: phenolic compound; oleuropein: phenolic compound; phenols: antioxidant
IT Miscellaneous Descriptors
Mediterranean diet; olive oil: vegetable oil; olives: food
RN **32619-42-4** (oleuropein)
108-95-2 (phenols)

L18 ANSWER 46 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:417654 BIOSIS
DOCUMENT NUMBER: PREV200100417654
TITLE: Water-soluble extract from olives.
AUTHOR(S): Crea, Roberto [Inventor]; Caglioti, Luciano [Inventor, Reprint author]
CORPORATE SOURCE: Rome, Italy
ASSIGNEE: CreAgri L.L.C., Hayward, CA, USA
PATENT INFORMATION: US 6197308 20010306
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 6, 2001) Vol. 1244, No. 1. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Aug 2001
Last Updated on STN: 22 Feb 2002
AB The invention provides olive-derived vegetation water substantially free of monophenolic compounds (e.g., tyrosol and its derivatives) from olive pits. According to one aspect of the invention, the pits or seeds are removed from the olives prior to pressing. The pitless pulp or meat is then pressed to obtain a liquid-phase mixture including olive oil, vegetation water, and solid by-products. The vegetation water is

separated from the rest of the liquid-phase mixture and collected. The vegetation water is useful as a source of oleuropein.
NCL 424195100
CC General biology - Miscellaneous 00532
IT Major Concepts
Methods and Techniques; Pharmacognosy (Pharmacology)
IT Chemicals & Biochemicals
oleuropein: antibacterial-drug, antifungal-drug, antiinflammatory-drug, **antineoplastic**-drug, antiviral-drug, cardiovascular-drug, antioxidant; olive-derived vegetation water
IT Methods & Equipment
olive-derived vegetation water production: production method
ORGN Classifier
Oleaceae 26475
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
olive
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
RN **32619-42-4** (oleuropein)

L18 ANSWER 47 OF 47 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:236012 BIOSIS
DOCUMENT NUMBER: PREV200000236012
TITLE: Skin anti-inflammatory activity of hydroxytyrosol and its acid form 3,4 dihydroxyphenylacetic acid.
AUTHOR(S): Despotopoulos, A. [Reprint author]; Rallis, M. [Reprint author]; Marakos, P. [Reprint author]; Rodis, P.; Proxenia, N.; Demetzos, C. [Reprint author]; Xenos, K.; Katsarou, A.; Tsaldaris, I. [Reprint author]; Papaioannou, G. [Reprint author]
CORPORATE SOURCE: University of Athens, Athens, Greece
SOURCE: Journal of Investigative Dermatology, (April, 2000) Vol. 114, No. 4, pp. 881. print.
Meeting Info.: 61st Annual Meeting of the Society for Investigative Dermatology. Chicago, Illinois, USA. May 10-14, 2000.
CODEN: JIDEAE. ISSN: 0022-202X.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Jun 2000
Last Updated on STN: 5 Jan 2002
CC Biochemistry studies - Vitamins 10063
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Methods and techniques 10504
Immunology - General and methods 34502
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
General biology - Symposia, transactions and proceedings 00520
IT Major Concepts
Pharmacology
IT Chemicals & Biochemicals
3,4-dihydroxyphenylacetic acid; alpha-tocopherol; hydroxytyrosol: antiinflammatory-drug, antioxidant characteristics, skin antiinflammatory activity; interleukin 1 beta; oleuropein: hydrolysis; **tumor** necrosis factor-alpha
IT Methods & Equipment

ELISA: analytical method; HPLC [high performance liquid chromatography]: analytical method; electrochemical detection: analytical method

IT Miscellaneous Descriptors
UVB light; green olive: food; lipid peroxidation; Meeting Abstract

ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

RN 102-32-9 (3,4-dihydroxyphenylacetic acid)
59-02-9 (alpha-tocopherol)
32619-42-4 (oleuropein)

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